

ECHO IRELAND

Journal of the Irish Radio Transmitters Society

May/June 2005

Echo Ireland is normally published bi-monthly for members by the Irish Radio Transmitters Society, P.O. Box 462, Dublin 9.
www.irts.ie

It is printed by Westside Press, Units 1, Greenhills Road Industrial Estate Greenhills Road, Tallaght, Dublin 24.

Material for inclusion in Echo Ireland should be sent to

Dave Moore, EI4BZ
Dooneen, Carrigwohill, Co. Cork
ei4bz@eircom.net
021-4883555/087-6290574

The views expressed in Echo Ireland do not necessarily represent the views of the Society or the Editor

Deadline for next edition
July 29th

Waterford Rally
16th of October 2005
McEniff Ard Ri Hotel.

Mayo Rally
November 20th 2005
Belmont Hotel, Knock.

2006 Limerick Rally
Sunday 12th March 2006
Greenhills Hotel

IRTS AGM 2006
Cork
April 22/23rd 2006



On 26th May 2005 a formal agreement between ComReg and IRTS was signed under which IRTS will undertake "the setting, organising and correcting of the examination for the Experimenter's Licence" for an initial period of three years.

Pictured (seated) Sean Donelan EI4GK President IRTS, Isolde Goggin Chairperson of the Commission for Communications Regulation and Joe Ryan EI7GY IRTS. Standing L. to R. : Dan Lloyd EI3AE, Paul O'Kane EI5DI and IRTS Vice-President Fr. Finbar Buckley EI1CS.

Contents

Society Officers and Committee Members.....	2
Silent Keys EI6DG, EI8DS, EI8FJB & EI9EY	3
IRTS takes over theory examinations — EI DXCC Listings.....	4/5
On The Air with Anthony EI2HY.....	6/7
Emergency Comms Conference at Tampere in Finland.....	8
Keith EI6JQ recounts his experiences with getting his Morse test.....	10
An introduction to APRS by John EI7IG	12/13/14/15/16
Limerick 70cm Repeater — EI Nets	17
Dayton Hamvention report from Tony EI5EM.....	18
In the wake of the Bounty with Dave EI4HT	20
News from Waterford, Mayo and Tipperary	21
Contest Corner — CW Field Day Report	22
IRTS 2m Spring Counties Contest Results by EI2JC.....	23
Members Adverts — Contest Calendar	24
Your Letters — Mayo stand at steam rally.....	25
International Lighthouse Weekend	26
Reading the Mail with Mike EI2CL — IOTA Contest EI Records.....	27
Cellcom Advertisement.....	28

Society Officers 2005/2006

President:	Sean Donelan, EI4GK	01-2821420	seandonelan@indigo.ie
Vice President:	Fr. Finbarr Buckley EI1CS	021-4346622	buckleyf1@eircom.net
Hon. Vice-Presidents:	Con Hunter, EI9V		
	Sean Nolan EI7CD	01-2851599	ei7cd@gofree.indigo
Auditors:	Ger Gervin EI8CC, Tom McLoughlin EI400		
Secretary:	Noel Walsh EI2JC		ei2jc@hotmail.com
Treasurer:	Brendan De hOra, EI3GV	01-2886144	ei3gv@eircom.net
P.R.O.	Paul Martin EI2CA		
AREN Co-ordinator:	John Ketch EI2GN		ei2gn@ketch.ie
Awards Committee:	Peter Grant EI4HX (Chair)	042-9332641	ei4hxperimental@eircom.net
	Sean Nolan, EI7CD, Brian Canning EI8IU.		
Awards Historian:	Sean Nolan, EI7CD	01-2851599	ei7cd@gofree.indigo.ie
Book Sales:	Peter Grant EI4HX	042-9332641	
Contest Manager:	Noel Walsh EI2JC		nwalsh@eircom.ie
EMC:	Stephen O'Leary EI6JA	086-8593474	sgol@eircom.net
Euro Com	Sean Donelan EI4GK	01-2821420	seandonelan@indigo.ie
Gaeilge:	Pádraig Ó Meachair	0404-67658	ei7gk@esatclear.ie
HF/WEIC Manager:	Sean Nolan, EI7CD	01-2851599	ei7cd@gofree.indigo
IARABD	Joe Dillon EI4FV	01-8390812	sodioluin@eircom.net
IARU	Sean Nolan, EI7CD	01-2851599	ei7cd@gofree.indigo
IARUMS	Thos Caffrey EI2JD	087-2953256	thoscaffrey@hotmail.com
Membership Officer:	Joe Ryan EI7GY	01-2854250	jryan@iol.ie
Morse Testing Co-Ord.:	Sean Donelan EI4GK	01-2821420	seandonelan@indigo.ie
Chief Morse Tester:	Dan Lloyd EI3AE	01-8382774	danielloyd@eircom.net
P.O. Box 462	Michael McNamara EI2CL	01-8372493	ei2clmike@eircom.net
Publications Editor:	Dave Moore EI4BZ	021-4883555	ei4bz@eircom.net
Radio News Editor:	Mark Wall EI7IS	087-6302026	ei7is@qsl.net
VHF Manager:	Joe Fadden EI3IX	087-2381054	joe_fadden@yahoo.com
WAI Awards Manager:	Tom Rea EI2GP	093-35523	tomre@eircom.net
WAI Book Sales:	Noel Mulvihill EI6HW	0902-74726	nfmulvihill@eircom.net
Webmaster:	Leslie Long EI4DU		leslie_long@eircom.net

QSL Bureau

QSL Inwards Manager:	Pat Fitzpatrick EI2HX.	041-9841817	pafitzpatrick@hotmail.com
QSL Outwards Manager:	Tony Baldwin EI8JK		ei8jk@amsat.org
Incoming QSL Sub Managers:			
0/1/Calls & SWL:	John Browne EI7FAB.		
2 Series Calls:	Thos Caffrey EI2JD	087-2953256	thoscaffrey@hotmail.com
3 Series Calls:	Pat Fitzpatrick EI2HX.	041-9841817	pafitzpatrick@hotmail.com
4 Series Calls:	Jim Ryan EI3DP	021-4632365	
5 Series Calls	Paul O' Kane EI5DI	01-2953668	pokane@ei5di.com
6 Series Calls:	Rory Hinchee EI4DJB		
7 Series Calls	Dave McGlone EI7JK	086-1960312	dmcglobe@esatclear.ie
8 Series Calls:	Brian Canning EI8IU	086-2514822	brianei8iu@eircom.net
9 Series Calls:	Mark Condon EI6JK		ei6jk@ntlworld.ie

News Bulletins and Readers

Sunday

Dublin	1100	7.043	SSB	Colm EI3H, Sean EI7CD, Gerry EI8CC
Wicklow	1130	7.068	SSB (as Gaeilge)	Paddy EI7GK
Dublin	1145	145.525	FM	Sean EI5GH, Brendan EI8IB
Dublin	1200	3.650	SSB	As 1100
Tipperary	2030	145.450	FM	Tommy EI7IT, John EI2JB

Dublin	2130	145.525	FM	As 1145
Monday				
Cork	2000	145.750	FM	Con EI7DJB, Vincent EI7HN
Limerick	2000	145.725	FM	Brian EI9AL, Tony EI2AW
Louth	2000	145.675		Peter EI4HX, Thos EI2JD

Galway	2000	145.625		Aengus EI4ABB, Richard EI5GC
Tuesday				
Waterford	2130	145.650	FM	John EI8JA, Robbie EI8FZB

IRTS Committee Members

2005/06

President	Sean Donelan EI4GK
V/President	Fr. Finbarr Buckley EI1CS
	Paul Martin EI2CA
	John Ketch EI2GN
	Pat Fitzpatrick EI2HX
	Noel Walsh EI2JC
	Brendan De hÓra EI3GV
	Joe Fadden EI3IX
	Peter Grant EI4HX
	Paul O'Kane EI5DI
	Sean Nolan EI7CD
	Brian Canning EI8IU
	Pat O'Connor EI9HX

Club Representatives

Dave Moore EI4BZ (East Cork Group)
Stephen O'Leary EI6JA (Cork Radio Club)
Mark Condon EI6JK (South Dublin R.C.)

Clubs are encouraged to send observers to committee meetings. Clubs with fifteen IRTS members can nominate a club representative who has full voting rights on the committee.

Dubus Magazine

IRTS has been appointed as the Irish distributor for the DUBUS Magazine, a quarterly magazine for VHF, UHF and Microwave enthusiasts.

This is a publication that no serious VHF/UHF/Microwave DXer should be without.

It carries all the latest news of happenings on the higher bands. It is a technical magazine and covers material that cannot be readily found anywhere else. It is published quarterly and the last issue had 116 A5 pages.

It is mailed directly to subscribers from the publishers in Germany.

The annual subscription is €22.00 and should be forwarded to:

Dave Moore, EI4BZ,
Dooneen,
Carrigtwohill,
Co. Cork.

Silent Key

Larry O'Sullivan EI8FJB

We are sad to announce the sudden death of Larry O'Sullivan EI8FJB of Thursday May 18th, in his 70th year, at his home in Douglas in Cork City.

Larry was well known in radio circles having been involved in the hobby since he was fifteen years old. He finally got around to getting his experimenters license just five years ago.

He will also be well known for his involvement with the Radio Museum at the Cork City Gaol Heritage Centre in Sundays Well where he set up and operated the station EI0CRM. He was a well known voice on the Cork repeaters and of late had been very active on both 40 and 80 metres.

Larry spent all his working life in the motoring business, initially with Fords in Cork, then in the UK and for the past twenty years he was with the Kevin O'Leary Group in Cork. He will be missed by all who knew him.

Our deepest sympathy to his wife Mary and daughters Catherine and Mary and his extended family.



Silent Key

Ken EI9EY

It is with deep regret that we announce the recent death of Ken Foley, EI9EY.

Ken was active on the radio until recently and was actively involved in the antenna maintenance of the Waterford repeater up to a number of years ago. Kens' wife Theresa and his son Ken are licensed experimenters.

The funeral took place on Friday June the 24th.

To his wife Theresa, his daughter Katrina and sons Jim and Ken we offer our condolences. May he rest in peace.

Silent Key

Mossie Quinlan EI8DS

We are sad to announce the death on June 11th of Mossie Quinlan EI8DS, from Cobh, Co. Cork, after a long illness. Mossie was a well known operator both on HF and on 2 metres with a special interest in the 40 metre band. He will be sadly missed by all who knew him.

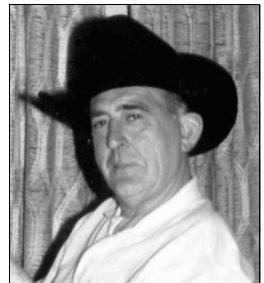
Our deepest sympathy to his wife Catherine, sons Billy EI8EYB, David, Maurice, Michael and daughters Angela, Dorothy and Catherine.

May he rest in peace.

Silent Key

John Ryan EI6DG

I was saddened to hear the news that John Ryan, EI6DG had become a silent key recently. John had been ill for a number of years and was a resident of Belmont Nursing Home for the last few. I am almost certain that he was originally from Tipperary. "Six Draught Guinness", as he liked to call himself, (although he drank Grouse and soda) was a character and a real gentleman to boot. He was a private, humble person with a great sense of humour and an easy-going positive attitude to life. That attitude persisted despite his illness.



I first met John around 1980 when I became a member of North Dublin Radio Club. He was also one of the "Baggot Street Gang", and served on the IRTS Committee in his time. I never saw 6DG angry, annoyed or holding a grudge. He could diffuse a heated situation with a simple phrase such as; "Ah sure what harm!"

I shared a room with 6DG during an NDR-organised trip to the USA in 1989 and got to know him well. One abiding memory I have of that trip was when 6DG needlessly suffered sunstroke, as a result of his adamant refusal to apply sunscreen after a swim in the Pacific Ocean. "I never got sunburn on Dollymount." was his reason for refusing. As a result, John was confined to base for a few days while the rest of us continued to explore San Diego. One evening, on returning to the hotel, I was worried on seeing John standing looking into the boot of a police patrol car and talking to two cops. He explained later that he had struck up a casual conversation with them in the hotel's coffee shop and commented on their open display of pistols and batons. Naturally, the boys warmed to 6DG and offered to show him some of the "additional necessary equipment", which they carried in the patrol car. There were firearms, riot gear, tear-gas cannisters etc. I overheard John asking; "Sure, tell me when was the last time you needed to use any of that stuff!" They both looked at John totally "disarmed" by the fact that he was not impressed with their potent arsenal. I could tell umpteen other amusing stories about 6DG but, unfortunately, space doesn't permit.

Many are the enjoyable Saturday evenings, (NDR nights), when John and several other NDR members shared more than Six Draught Guinesses at the Pebble Beach or Fingal House pubs in Clontarf. With John in the company the craic was always mighty. He had anecdotes a plenty and a unique style of delivery. Happy Times! "Six Draught Guinness" was always 5 and 9 and always came across free of QRM and QSB.

He will always be 5 and 9 plus in the memories of all who have had the pleasure of knowing this gentle giant.

John lost his wife Rosaleen several years ago. He is survived by his two sons Stan and Carl and by his daughter Audrey. To his family and many friends I extend my deepest sympathies on my own and on the Society's behalf.

Ar dheis-lámh Dé go raibh a h-anam dilis. Slán a chara.
Tony EI5EM

IRTS takes over Radio Theory Examinations

On 26th May 2005 a formal agreement between ComReg and IRTS was signed under which IRTS will undertake "the setting, organising and correcting of the examination for the Experimenter's Licence" for an initial period of three years.

So ended a five year period of discussion, negotiation, recrimination and anxiety as the Regulator sought to find an alternative method of measuring the suitability of candidates for Experimenters' Licences.

The subject of outsourcing the Theory Examination was first raised by ODTR (as it was then) with IRTS in April 2000. Initial discussions took place and the Society Committee set up a subcommittee to consider a response. In due course IRTS agreed in principle that it would consider taking on the function of Examiner, subject to certain safeguards. The subject was then dropped (by ODTR) only to re-emerge a year or so later in a somewhat different guise.

This time it was all about the security and integrity of the exam papers and examination itself. IRTS was required to maintain exam papers under strict control in locked safes, to hire paid exam supervisors and invigilators and otherwise behave as if it were running a third level examination.

As this involved significant outlay, IRTS responded that this could only be undertaken if ODTR/ComReg was willing to grant the funding necessary to pay for these luxuries.

Again the matter fell into abeyance but around the same time a further event occurred that made finding a solution to the problem more urgent.

In 2003 the Marine Radio Surveyors who had conducted the Theory Examination for many years announced that, due to the pressure of other work, they would no longer be in a position to conduct any further exams.

IRTS considered that in the absence of the Marine Radio Surveyors, and with no progress made on outsourcing, the responsibility for holding Theory Examinations fell back to ComReg. Following representations from the Society ComReg agreed to hold a theory Examination in February 2004 with the assistance of IRTS.

This was held in the ComReg offices and proved very successful but subsequent difficulties with the results left the ComReg officials unhappy, to say the least!

At a meeting in October 2004, ComReg announced that they were unwilling to hold any further examinations, that they were proceeding immediately to put the outsourcing of the exams under way and that it was up to the successful bidder for the exam franchise to hold the first exam in the early weeks of 2005.

IRTS protested that this was grossly unfair to exam candidates and that the outsourcing could not be achieved in such a short time frame. As ComReg continued with their refusal to hold an exam, IRTS wrote formally to the Minister for Communications and the Chairperson of ComReg seeking a change of heart.

Both replied in the negative on the basis that "there was no statutory responsibility on ComReg for the conduct of Theory Examinations".

This is a stance that IRTS finds difficult to accept!



Pictured at the signing were Sean EI4GK, IRTS President, Isolde Goggin, Chairperson of the Commission for Communications Regulation and Joe EI7GY IRTS.

In the event, ComReg eventually published (on 14th February) its Information Document seeking applications from parties interested in conducting the Theory Examination.

It was generally accepted that this was such a one-sided document that no organisation with a sane management would be willing to express an interest.

The IRTS Committee discussed the document at length and decided that, despite the disadvantages, the Society had an obligation to the hobby to facilitate the entry of future applicants and it should therefore prepare and submit an Expression of Interest.

A forty page document was prepared by a team led by Sean Nolan EI7CD which set out in detail how IRTS would approach the Theory Examination were it granted the franchise to run it.

It included a multiple choice sample exam paper; papers in the traditional format – together with a marking scheme - for those candidates who had been waiting for over a year to sit an exam. It dealt with the mechanics of setting the papers, running the exam and marking the papers.

It also demonstrated that IRTS had within its membership all the competencies necessary to undertake such a task.

Following an assessment of the submissions made to it, ComReg decided that the IRTS document was superior to all others and sought to enter into negotiations with the Society in the first instance.

Now began a period of four to five weeks of intense negotiation during which the Society was asked for more and more information.

An initial agreement was produced by ComReg which, from the Society's standpoint, was draconian in the extreme.

(Continued on page 5)

(Continued from page 4)

The Society's negotiators had to argue about each provision and justify our point of view. Eventually we reached a stage where we thought agreement was possible.

A final meeting attended by ComReg's Chief Legal Advisor ironed out the final snags and enabled agreement to be reached in time for a formal signing on 26th May.

The negotiating team of Sean Nolan EI7CD, Joe Ryan EI7GY, Stephen O'Leary EI6JA and Sean Donelan EI4GK were happy that their efforts had brought about an agreement that will maintain the traditional high standards required of those who wish to enter our hobby while enabling the Society to offer them a better service than that available to them in the past.

The first examination run under the auspices of IRTS was held on 16th June. In deference to those who had studied for an exam set in the traditional manner, this required answers in the essay-type format.

Future examinations will be based on the same syllabus but in the multiple choice format.

Each exam will consist of sixty questions with four alternative answers – only one of which is correct.

Two hours will be allowed for completion of the paper.

Exams will be held in Dublin in January and June each year. They will be held in other centres both inside and outside Dublin, but only if sufficient candidates are available to make the holding of an exam viable.

A sample paper based on the new format will be available shortly but the question bank as a whole will not be published.

IRTS has agreed with ComReg that the question bank will be increased from its present level to 800 questions over a period of two years and will be kept up to date on a continuous basis.

Finally, to cover the costs of running and maintaining the examination system and hopefully to provide some additional funding for the Society, a fee of €50 will apply to candidates sitting the exam for the first time.

Students and repeat candidates will receive a concession.

EI DXCC Listings					
(as at July 1st 2005)					
Mixed			CW		
344	EI7CC	Peter Ball	294	EI7CC	Peter Ball
339	EI2GS	Frank O'Brien	206	EI4BZ	Dave Moore
339	EI18H	Patrick Fagan	139	<i>EI7BA</i>	<i>John Tait</i>
334	EI6FR	Declan Craig	109	EI2IH	Hugh Galt
324	EI6S	George McClarey	109	EI4HM	Don Walmsley
306	EI2HY	Anthony O'Rourke	107	EI/GM4ARJ	JW Ferguson
262	EI2GX	Tony Stack	106	EI1DG	Patrick McGrath
223	EI4BZ	Dave Moore	40m		
168	<i>EI7BA</i>	<i>John Tait</i>	112	EI7GL	John Desmond
128	EI8HA	Jim Murphy	20m		
126	<i>EI8IU</i>	<i>Brian Canning</i>	106	EI3GV	Brendan de hÓra
107	EI9HQ	Declan Lennon	15m		
105	EI2JD	Thos Caffrey	104	EI3GV	Brendan de hÓra
104	EI5GM	Jeremy Sheehan	10m		
Phone			128	EI4GK	Sean Donelan
343	EI7CC	Peter Ball	113	EI7GL	John Desmond
337	EI2GS	Frank O'Brien	6m		
328	EI8AR	Bro. John Shortall	108	EI3IO	Dave Court
320	EI6S	George McClarey	104	EI7GL	John Desmond
306	EI8EM	Alan Cronin	101	EI3EBB	Alan Foley
300	EI8AU	Bill O'Reilly (SK)			
256	EI3GV	Brendan de hÓra	Nicki Mullally EI9JF		
253	EI4GK	Sean Donelan	New DXCC member		
186	EI7II	Albert Kleyn			
177	EI9FE	Mike Hoare			
165	<i>EI2CH</i>	<i>Gerry Morgan</i>			
166	EI7GL	John Desmond			
144	EI4BZ	Dave Moore			
118	EI9JF	Nicki Mullally			
115	EI7BA	John Tait			
114	EI4EX	Hugh McCormack (SK)			
108	EI8IU	Brian Canning			
105	EI1CS	Rev Finbarr Buckley			
101	EI3IP	Sean Ó Súilleabhaín			
102	EI9HQ	Declan Lennon			

Entries in bold indicate new listing. Entries in italics indicate changes in the listing.

Cork Repeater Group

The Cork Repeater Group is at present in the process of upgrading both the 2 metre and 70 centimetre repeaters, and wish to apologise for the interruption of service to the 2 metre repeater EI5CRC. It is hoped to have it back in full service soon.

Membership subscriptions for the repeater group should be forwarded to the Group's Treasurer , John Mooney EI6AK, "The Cottage", South Douglas Road, Cork. This years subscription is €20.00.

VHF/UHF Squares Table 2005

Could anyone working DX on any of the VHF/UHF bands please forward their totals for inclusion on the squares table.

The table will be published in Echo Ireland and scores will be updated on EI7GL's web page www.qsl.net/ei7gl as they come to hand.

Updates to Joe Fadden EI3IX, VHF Manager at joe_fadden@yahoo.com

Thanks to John EI7GL for including the table on his website over the years.



On The Air

With Anthony O'Rourke EI2HY

Anthony O'Rourke EI2HY,
13 Hazel Road,
Togher, Cork.
ei2hy@eircom.net

Welcome to another issue of On the Air.

Conditions this time of the year normally suffer from the 'summer dol-drums' with the fine weather keeping people outdoors and the propagation not doing a lot!

The month of June began with a CME on the 9th which, when it impacted on the 12th, led to a Geomagnetic Storm which all but wiped out the already depressed higher bands hi!

And just to stack up on that yet another CME impacted just after the longest day of the year and had the K index reaching a 7 and Planetary A-index at 48 on June 23rd

Band Reports

Conditions as already mentioned have not been the best during the month of June, although some nice openings on the VHF bands like **2m** and **6m** have kept things interesting!

First indications of things brewing is when you suddenly start hearing broadcast stations storming in between 88-108 MHz, always a good time to listen out on 144.300 MHz hi!

Furthest I've heard was into Poland (SP) and only just have a vertical collinear here which is also the same one used on **6m**. That band had an interesting start to the Sporadic-E season when the first opening into Africa that I've heard occurred on May 19th when EH9IE in Ceuta (IM75HV) was easily worked as was ZB2CF in Gibraltar (IM76HD) which isn't heard too often on the 'Magic Band'.

That same day it opened to Asia, albeit in the form of relatively close Cyprus hi! 5B4FL had a large pile-up screaming at him.

Major DXpeditions were scarce enough, only major 'game' in town are the group on St Paul island (NA-094) who are still QRV as CY9SS. All was not plain sailing though as the crew had a very rough landing on June 7th and they lost a generator and three tower sections overboard during the landing.

As if that wasn't a bad omen one of the team members Krassy, K1LZ, broke a leg and had to be dramatically airlifted off the island to hospital in Nova Scotia leaving the team down to four members for the first few days. Happily all are

well and have been joined by more members and are scheduled to operate until July 7th which meant a whole month to work them on all needed bands and modes hi!

If you still need Palmyra Atoll (KH5) and were waiting for the previously announced trip there for the end of June the bad news is that it was cancelled due to the two ops having their seats allocated to other passengers!

Plans are to get there sometime before the end of the year.

Some interesting prefixes could be picked up during June such as R750KG from Kaliningrad which is the call sign that well know contest group RW2F used to celebrate the 750th Anniversary of Kaliningrad-Konigsberg.

Celebrating a slightly older birthday is PA2000N marking the 2000 years of the town of Nijmeken. The call was used in the IARU Contest and will be QRV up until July 23rd with a QSL route to PA0KHS.

IO8JR is a special call on from Italy until July 30th to celebrate the election of Pope Benedict XVI and if you're a cycling fan, the annual Tour de France throws up an interesting special event call with TM5TDF is QRV from July 8-10 with cards to F6HAV.

On from Africa at the moment you can still catch 5H9KR, Ram, with cards to KF9TC.

Well known Pacific island hopper Vlad, UA4WHX, finds himself 'land locked' in Djibouti as J20VB after he was QRV from the Sudan beforehand as ST2VB. Heard a lot on **10m** in June was Cato, 7Q7PF while also on from Malawi is 7Q7MT, Mark, who seems to favour the 'traditional band of **20m**'.

YL chasers were kept happy when Maggie, C91MJ, spent a good number of evenings on **17m** in June.

Prefix hunters would have been pleased to catch 7W1ASF from Algeria operated by Tayeb with cards going to 7X2DD and a nice one on RTTY was Gus operating 9Q0AR in Democratic Republic of Congo, QSL him via SM5BFJ,

Mike (PA5M) arrived back in Chad in mid June to once more take up the call sign TT8M and the interesting news is that Mike has a **6m** rig and beam with

him. Already worked from Europe on six was TZ9A, Christian, from Mali and locator square JK31KQ. Also heard but not worked is avid **6m** op Nicolas, 5T5SN in Mauritania who I heard working a large US pile-up on June 20th.

Rockall

The last unnumbered IOTA island was finally put on air for a mere three and a half hours on June 16th as MS0IRC/p came on from Rockall (EU-189/ provisional) and made just 262 QSO's with enough DXCC Entities to satisfy the requirements for IOTA status and then promptly went QRT. Not much use to the thousands of IOTA Chasers out there hi, so the search is on for some brave Irish souls to head out there, scale the rock and 'fly the flag' for us!

Up and Coming

One of the Contest calendars main events will be on the weekend of July 9/10 and depending on print you might receive this before it so here's some of the more interesting IARU Headquarter Stations that will take part in the IARU Contest.

We'll have our own EI0HQ so catch them on as many bands as possible hi!

Our neighbours across the water the RSGB will again run a nationwide multi-mode multi-location entry with GB5HQ, Belgian's UBA will use OO175B with cards to ON4UN, Lithuania will be represented by LY0HQ who'll give out LRMD as a multiplier, the Italians go overboard with IU1HQ, IU2HQ, IU3HQ, IU7HQ, IU9HQ and IU2HQ/IC8, cards for all calls go to I2MQP.

Also running multi-stations will be China's CRSA with the unique single letter prefixes of B1HQ, B2HQ, B3HQ, B4HQ and B7HQ.

Kuwaiti ARS had planned to use 9K2RA but will now use 9K9HQ, QSL this one to 9K2CQ.

In Brazil they'll use PP5WRTC as a reminder that the WRTC 2006 is taking place in Florianopolis.

Also in South America, Uruguay's Society RCU will be on as CX1AA and this call should be QSLed via KA5TUF for the contest only.

(Continued on page 7)

(Continued from page 6)

IOTA Contest

The main event in July for island chasers is the IOTA Contest being held this year over the weekend of July 30/31. Some new ones might possibly be activated before then so listen out for a group from the Ukraine heading to Mozambique and Swaziland between July 23rd to August 10th.

First stop is Mozambique where the team members, who consist of: Alex UT5UY, another Alex UX0LL, Roman UR0MC, Dim UT5UGR, another Dim UT7UJ, Bob UT7UT and the two Andy's UU4JMG and UR4LRQ, plan to use personal calls before combining to use C93DX from Chiloane island (Sofala District Group AF-New) from July 28th and Aug 1st including the IOTA Contest, then it's onto Swaziland to use 3DA0UY, 3DA0LL and so on from August 4-7.

Plenty of groups have plans to go island hopping for the Contest.

In Europe you can pick up ES2U from Rammu island (EU-149), and F/ON5MF from Batz island (EU-105).

Members of the Swedish Fura Umea Radio Club will be on from Bredskar island (EU-135) with the club call sign SK2T while out in the Far East some South Korean IOTA's will be active as two groups will be on from AS-081 and AS-105 respectively.

First up will be D70YT from Ch'angson island operated by HL5BDD, Park; HL2IFR, Ryu; DS5QKC, Jae; DS5SPT, Song; DS5TGK, Lee; and 6K5VTG, Ahn.

On AS-105 DT0HF/2 will be the call used from Taebu island by operators HL2FDW, DS4NMJ, DS1OFE, 6K2ABX, 6K2DIO and HL2PCU.

Moving to the cooler climes of Alaska you can pick up KL7/N7YX from St Paul, Pribilof islands NA-028.

Now an annual event, members of the Venezuelan Group DX Caracas will celebrate Venezuelan Navy Day in July by being QRV from an IOTA Group which this year will be SA-058 from July 7-10.

In the Pacific Guy, FR5ZL, makes another return trip to Wallis and Futuna between July 16th and August 15th and will be using his usual call FW5ZL. Also in the Pacific you can find Jim, WB2REM, who'll be sunning it up from Bora Bora, French Polynesia (OC-067)

between July 24th to August 3rd as FO/WB2REM.

A new one is planned for September as well known IOTA chasers Mike, K9AJ, and Bruce, KD6WW, have plans to travel to the far north of Canada and activate Nunavut (Kitimeot Region) West (NA-new) and nearby West Central Group (NA-175). All this scheduled for between Sept 1-7.

Possibly still QRV when you get this should be Saad, N5FF, who's once again on from Syria as YK1BA between July 2-16; likewise you may have time to catch Tom, VK2IR, on from the South Cook islands as ZK1IIR from July 2-12.

You'll need to brush up on your French for this one as Luc, F6FVX, will be on from northwest Cotonou in Benin as TY/F6FVX from August 13th to September 6th.

Gab, HA3JB, is again back in Egypt until December as SU8BHI while Belgian ops Jacques, ON4AJV, and Willem, ON6TZ, return yet again to Cambodia between October 30th and November 10th to operate from Koh Tas island (AS-133) as XU7TAS.

Collectors of special event calls and prefixes can chase some of the following in July:

from Poland catch SN125LO which is on from July 1-20 celebrating 125 years of Sanok, Poland's number one school, QSL via SP8AB.

Just next door and running a bit of QRP will be UE3QRP/2 operated by the RU-QRP club, all this happening from July 1-8.,

VA7C will be the call used by Ron, VE7RLE, to mark the centennial of the city of Salmon Arm in British Columbia, Canada

That's it for this issue, a slightly shorter article than usual but there's not a lot to report on so hopefully the DX will pick up hi.

My thanks to the Daily DX and until next time, keep listening!
73 de EI2HY

New is not always better!

CW beats texting

DOTTY and old-fashioned means of communication can still be the best: Morse code has seen off the challenge of the text message in a contest pitting the best in 19th- century technology against its 21st-century successor.

The race to transmit a simple message, staged by an Australian museum, was won — at a dash — by a 93-year-old telegraph operator who tapped it out using the simple system which was devised by Samuel Morse in 1832 and was the mainstay of maritime communication up until 1997.

Gordon Hill, who learnt to use the technique in 1927 when he joined the Australian Post Office, easily defeated his 13-year-old rival, Brittany Devlin, who was armed with a mobile phone and a rich vocabulary of text message shorthand. Mr Hill, whose messages were transcribed by another telegraph veteran, Jack Gibson, 82, then repeated the feat against three other children and teenagers with mobile phones.

In the competition, at the Powerhouse Museum in Sydney, Mr Hill and his rivals were asked to transmit a line selected at random from an advertisement in a teenage magazine.

It read: "Hey, girlfriend, you can text all your best pals to tell them where you are going and what you are wearing." While the telegraphist tapped out the line in full, to be deciphered by Mr Gibson, Miss Devlin employed text slang to save time. She keyed: "hey gf u can txt ur best pals 2 tel them wot u r doing, where ur going and wot u r wearing."

Just 90 seconds after Mr Hill began transmitting, Mr Gibson announced that he had the message received and written down correctly. It took another 18 seconds for Miss Devlin's message to reach the mobile phone belonging to her friend. Mr Hill said that he was impressed by modern technology, even though his clunky telegraph machine emerged on top in three further contests. Text messaging, he said, had even been predicted by one of his colleagues in 1961.

"An engineer told me the day would come when we would be able to send messages without wires," he said. Miss Devlin said that she had two years of texting experience. "I send about three messages a day," she said. "I used to send lots more but I ran out of credit."

National

4 Metre Activity Nights

First Tuesday every month

70.2625 MHz FM

2000-2200

The Tampere Statement

Adopted by the first
Global Amateur Radio Emergency Communications Conference
GAREC-2005
Tampere, Finland, 13 – 14 June 2005

1. The Plan of Action adopted by the World Summit of the Information Society in Geneva on 12 December 2003 states the need to strengthen and expand ICT-based initiatives for providing humanitarian assistance in disasters and emergencies (PoA C7, 18. f.).
2. Recognized by the International Telecommunication Union, “the Amateur Radio Service is a radio communication service for the purpose of self training, intercommunication and technical investigations, carried out by amateurs, that is, by duly authorized persons interested in radio technique solely with a personal aim and without pecuniary interest.” (Radio Regulations Article 1.56) #
National amateur radio societies throughout the world work together under the auspices of the International Amateur Radio Union (IARU), a sector member of the ITU Radio-communication and Development sectors.
3. The tragic events of 26 December 2004 have once more drawn the attention to the importance of ICT, and to the need to make best use of all available means of communications in all phases of disaster prevention and response. The volunteers of the amateur radio service made substantive and widely recognized contributions at a time when other links were non-existing, destroyed or overloaded.
4. During first Global Amateur Radio Emergency Communications Conference GAREC-2005, Tampere, Finland, 13 – 14 June 2005, representatives from all three ITU regions reviewed the role of the amateur radio service in the service of emergency and disaster communications.
5. *The Conference reviewed* the possibilities to further improve the contributions the amateur radio service can make to the goals defined by the World Summit on the Information Society.
The considerations included in particular the following issues:
 - a. The existing structures and agreements of cooperation between national amateur radio organizations and institutional providers of emergency and disaster response services,
 - b. The role of the amateur radio service in national and international humanitarian assistance (PoA C7 # 18.f and DoP A. # 16) and in disaster prevention (DoP B.7, # 51) and preparedness,
 - c. The role of the amateur radio service in capacity building (PoA C4.# 11), training (DoP B.4,# 31), and in improving global affordable connectivity (B6,40),
 - d. The need for a supportive regulatory framework (PoA C.6, # 13.a.) as part of an enabling environment (B6, 38) to improve access to communication (DoP B. #19).
6. *The Conference furthermore considered* relevant regulatory instruments, in particular
 - a. The Tampere Convention on the Provision of Telecommunication Resources for Disaster Mitigation and Relief Operations, entered into force on 8 January 2005,
 - b. The decisions of the World Radiocommunication Conference (WRC) of 2003, providing substantial facilitations for the amateur radio service resulting in particular from modifications to Article 25 of the Radio Regulations,
 - c. The ITU Recommendation on Disaster communications in the amateur and amateur-satellite services (Rec.ITU-RM.1042),
 - d. The ITU Resolution on Public Protection and Disaster Relief (Res.646, WRC-03),
 - e. CEPT Recommendation 61-01 facilitating the trans border operation of stations of the amateur radio services, and
 - f. The documents included by reference in those listed above.
 - g. The results of the second special session on Telecoms for Disaster Relief, held during the Second Preparatory Meeting for Phase Two of the World Summit on the Information Society,
7. *The Conference concluded*, that
 - a. The amateur radio service has the proven capabilities and capacities to serve the international community through its global network of infrastructure-independent stations. Such stations are not only most likely to withstand the physical impact of disasters, but their flexibility furthermore avoids the overload all public networks inevitably experience in the aftermath of disasters. The broad spectrum of technologies used by the amateur radio service allows the joint use of traditional media and new technologies (PoA C2. # 9. 1.)
Beyond its character as a global network, the amateur radio service is an invaluable resource of skilled operators, trained and experienced in maintaining communications under the most adverse conditions. It is thus essential, to ensure that this resource can be fully utilized in the service of emergency and disaster response providers.
 - b. The amateur radio service provides continuous and adult education, re-training, life-long learning, helping people

to benefit from new opportunities offered by ICT (DoP B4. # 31).

d. In order to fully apply its capabilities towards the goals determined by the World Summit of the Information Society and expressed in its Declaration of Principles and the Plan of Action, the Amateur Radio Service needs the access to appropriate portions of the shared and limited resource of the radio frequency spectrum.

8. *The conference appeals* to all stakeholders in the Information Society and in particular to the respective national and international regulatory authorities such as governments, administrations and international organizations, to support the amateur radio services and to include them in their endeavours to remove barriers to equitable access to information (DoP B3. # 25).

9. *The Conference recommends* the inclusion of a respective item into the document(s) resulting from Phase 2 of the World Summit of the Information Society (item 12 of the draft agenda WSIS-II/PC-2/DOC/9-E).

Establishing a “Center of Activity” Frequency for Emergency Traffic on the 15, 17, 20, 40, and 80 meter bands

A proposal from the first Global Amateur Radio Emergency Communications Conference, GAREC-2005, to IARU Regions 1, 2, and 3

The first Global Amateur Radio Emergency Communications Conference, (GAREC-2005), Tampere, Finland, 13 – 14 June 2005,

recommends

that the next competent conferences of IARU Regions 1, 2, & 3

should consider

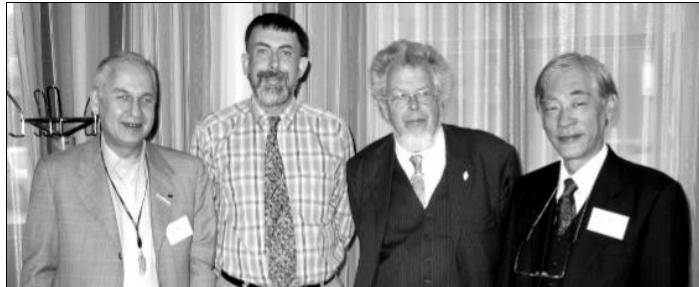
the establishment of a Center of Activity Frequency for emergency traffic in the 15, 17, 20, 40 and 80 metre bands.

Additional proposal:

In recognition of the long tradition of the city of Tampere in emergency telecommunications, and as the host of GAREC-2005, the Conference

Proposes furthermore that center of activity frequencies determined in the sense of the above proposal shall be known as

The Tampere Frequencies



TA1E Aziz Sasa TRAC, EI2GN John Ketch IRTS, F/HB9AQS Hans Zimmermann IARU, JA1TRC Jay S. Oka JARL/IARU R3.

GAREC 2005

The first Global Amateur Radio Emergency Communications, GAREC 2005, conference was held in Tampere (Tampere), Finland, on Monday and Tuesday 13th & 14th June, organised under the auspices of the IARU.

This was hosted by the Finland IARU member group SRAL with Seppo Sisättö OH1VR as organising chairman.

The Chairman for the Programme was Hans Zimmermann F/HB9AQS, IARU EC Coordinator

There were 45 delegates from the three IARU regions and 17 countries including the USA, UK through Europe, Africa, and Asia to Japan.

National Delegates presented information on the Amateur Radio Emergency Service of their own countries and described some of the major emergencies and other events in which they have been involved.

The IRTS was represented by John Ketch, EI2GN, Voluntary Emergency Communications Coordinator, who described the organisational structure of the AREN Group.

Activities such as the lights out exercise were described and it was found that similar techniques have been used by other groups, particularly in the US.

Delegates from India, Sri Lanka and other areas effected by last years Tsunami gave accounts of their involvement in handling emergency traffic during the event.

This brought it home to members attending that this was an all-too-real experience, and that amateur radio operators have a clear and valuable role in responding to disaster situations.

Arising from the conference is a document that will go forward to the World Summit of the Information Society and one that will be presented for decision to IARU Regions 1, 2 and 3 that deals with HF Centre of Activity Frequencies for emergency communications.

These frequencies are proposed to be known as the Tampere (Tampere) frequencies. (see column 1)

The conference proceeding will be posted on the IARU website.

All feedback for ongoing discussion and contribution to the decision making process, in particular to the Tampere frequencies, should be transmitted to IRTS Voluntary Emergency Communications Coordinator John Ketch ei2gn at ei2gn@aren.ie.

I used to be a Central Generating Board, (Golf zero CGB)..... but now I'm Just Quirky (Echo India six JQ).

By Keith EI6JQ

How often do you use your Morse key?

There are many radio hams in England. And quite a few in Ireland. What follows relates to an English one who has moved to Ireland. My name is Keith. I use (almost) 100% CW. What follows will, I hope, make you smile, it might even make you laugh but most of all I hope it will make you think.

And it came to pass that twenty years ago this summer, (can it really have been that long?) I made my very first QSO from a converted loft shack, QTH Dartford Heath, Kent, England.

A very excited, and slightly shaky voice waffled into a microphone the letters "CQ" on 80 metres and rather hoped that no one would reply. After a few more nerve shattering attempts I got a reply and my first ever QSO was entered into the station log.

As I sank into my chair my eye caught sight of the Morse key on a shelf. I paused. "Well, may be I might just listen to a bit of Morse tonight." I thought to myself. "Just to keep my ear in." I tuned to the lower end of the band. "Oh, these guys are much too fast for me," I said to myself, "I'll stick to SSB."

"Chicken!" said the key.

"Yea right!" I replied, "It's okay for you, you've only got to send it. I've got to copy it as well!"

And now, another question:- Do you know what CW stands for? Answer,..... the Civilized Way of radio communication.

I've always been very lucky when it comes to passing academic exams. I don't know why that is. So the theory exam was not too difficult for me. I knew my Achilles heel was going to be the practical Morse test but in that matter I had a stroke of luck. I was put in touch with a tutor who had forty years of CW experience.

My mentor turned out to be a really eccentric senior English gentleman by the name of Lyle, G6HD (Half Daft) (Silent Key of many years now alas). Well spoken and very well educated, (ex Cambridge Phd. no less) Lyle was one of those who would not tolerate fools gladly, so I was very proud that he should think I was no fool and take me under his wing.

He invited me to his QTH. We sat down in a couple of old (and very well worn) armchairs in his shack and listened to an old WW2 AR 88 receiver. There was some Morse coming in at about 200 w.p.m. "Oh," said Lyle, "that's Max in Oslo. He's an F.O.C. member. Good chap. Lovely XYL though a bit on the plump side for my liking. Makes wonderful stuffing. (I assumed he was referring to the ladies culinary expertise). Got a couple of charming harmonics. Fine Business all round."

At this point Lyle started to "load" his tobacco pipe.

"Now Keith, what do you know about the rhythm method?" I could never be quite sure if his statements had deliberate sexual connotations or not.

"Well.....err..... I was rather looking forward to hearing your opinion of it Lyle." I bluffed my way out of the question. Lyle continued "CW isn't about counting dots and dashes in your head, " He struck a match and got to his feet, "It's about rhythm."

The sound of crackling tobacco and the emergence of smoke announced that the pipe was QRO. Lyle raised his arms to shoulder height and continued, "Take the letter 'D'. Some

would think it was a dash and two dots, but it's not. It's a waltz. Do you follow? dear boy"

"Yeess." I said uneasily while pushing myself back in the chair and concluding this guy was a sandwich short of a picnic "Not too sure about the waltz part though. Could you elaborate please?"

"Well it's obvious old boy," At this point he started to turn and literally waltz around the room with arms out stretched, " It's like a waltz, o-n-e two three, o-n-e two three. D-a-s-h dot dot, d-a-s-h dot dot. Do you get my drift ol' man? It's all down to rhythm!"

With a broad grin on my face I nodded my understanding and conceded this fellow wasn't half daft at all, he knew exactly what he was talking about.

We both laughed and the senior citizen collapsed into his chair to draw heavily on his pipe and then disappear in a haze of atomised 'St.Bruno.'

In 1985 the Amateur Morse test was conducted by British Telecom International. (For a fee of £12.50 as I recall.) The test comprised of the sending of a 36 word passage and 10 five number groups all at 12 words per minute. and the receiving of the same number of numbers and plain language text, at the same speed.

As the sight of the enormous towers supporting the HF antennas of North Foreland Coastal Communication Centre (Near Ramsgate, Kent.) got closer I reminded myself that my life did not depend on the passing of this test. "They want me to pass." I kept telling myself.

Yorkshire is a part of the UK I've never been to. One reason being that the further north I've travelled, the harder time I've had in understanding peoples accents, so I'd never gone further north than Birmingham.

It turned out that my examiner, (Yes you've guessed it,) was a Yorkshire man.

We sat down at a bench table on which was a Morse key attached to a small sounder.

"What part do y' want to do first Keith, sending or receiving?" I was asked

"Oh I think I'll take the easy part first." I replied, grateful to have had the option. "I've brought my own Key, do you mind if I use it?"

"Ooooooo that's champion! I'll, let you connect it oop."

The text to be sent was something about the speed of light being finite and that nothing can travel faster. I thought I did rather well. The sending of the 10 five number groups also went very well. At the end of the sending part I looked to my examiner for an indication of my progress. This tall, grey haired Yorkshire man just sat in his chair, stony faced, hands clasped, staring at the table. He drew a deep breath and paused before announcing, "Right then, lets see how y' get on at receiving shall we?" His voice was not confident. I could feel my spirit draining. I picked up the pencil and paper provided. "Will those be all right for y'? or have you brought y' own writing stuff as well?"

I thought to myself, "Now he's being sarcastic. What chance have I got? A little fellow from Kent up against this Phillistine from Yorkshire.

My examiner may have been old. He may have been less than

(Continued on page 11)

(Continued from page 10)

friendly. He may even have come from the North of England, but he knew how to send Morse code. I take my hat off to him for that, his sending was impeccable. I don't think I made a single error in the receiving of the plain text.

The thought did occur to me that as the numbers are the easiest part of the receiving section, if my sending had been okay I might just be home and dry. How wrong I was. The test allowed for only two errors in the receiving of the 10 five number groups.

I copied down the first two groups with no problems. Missed one number in the third group. Groups four, five and six, were all perfect. I lost one number in group seven. "Oh God no!" I said to myself. "Please let me copy the last two groups without any problems." No sooner had I thought that, than although my ears heard dots and dashes, my hand wrote nothing on the paper. "DAMN!!" I said out loud.

Frustrated and more than a little disappointed I threw my pencil down on the table and stood up from my chair. "Don't bother sending any more mate," I announced, "I've just missed the third number. That's it, I've failed!"

I looked towards my fellow Englishman who was obviously taken completely by surprise at my outburst. He was just sitting there, staring up at me with mouth open with a slightly fearful look in his eye. "Oh" he said after taking a breath, "that's a shame in'tit."

There was an extended pause after which he continued, "Look I've t' make a phone call now. Why don't you go out int' field and see if y' can identify what type of aerials we're using. I'll meet you back in here in five minutes. Okay?"

I said nothing but gestured my gratitude and walked out of the room. The only thing I can remember about those aerials was how tall the towers were, and getting wet feet from the dew on the long grass.

Back in the exam room the Yorkshire man returned and asked to see what I'd written down during the test. "Look 'ere," he said, "why don't I just run those last two groups past you again, just to see if you could have done it."

A thought came into my head, though I dared not think it. I sat down, held the pencil and waited for the staccato sound of the Morse. I copied the numbers down PERFECTLY. The examiner cast his eye over my copy. The pause was unbearable. I heard my voice say "Well, have I passed?"

"Oh we're not allowed to say at this point Keith, you'll be notified through the post in due course,"

I sighed deeply.

My examiner continued, "But I will ask you a question though" "Ask away," "Do y' have an application form for an Amateur Radio licence at home?"

"Yes, I do," I answered.

"Good." he said. "Because you're gonna need it."

Wonderful county, Yorkshire. And such nice people. Can't imagine why I've never been there.....

This, then was the effort I put into getting my licence. No doubt, dear reader, you may have endured similar traumas.

Finally I want to return to the first question I asked you. When did you last use a Morse key? Has all the time and effort you put into learning Morse code simply gone out the window? When will be the next time you use a key?

Think about it friends,...just think about it.

B C N U
Keith EI 6 JQ



VU2DBO Prasad NIAR, VU2RBI Bharathi NIAR, and EI2GN John IRTS pictured at the International Radio Emergency Communications Conference in Tampere in Finland in June. See pages 8 and 9 for all the details.

Satellite Launch

A launch date for SSETI Express and three cubesats has now been confirmed as the 25th of August, with the 26th as a back-up window. The satellite has now completed pre-launch tests.

The satellite is expected to be ready for despatch to the launch site during the last week of this month.

SSETI Express will automatically downlink general telemetry at 9K6 on 70 centimetres and it will also be possible for amateurs to request specific downloads.

It is planned that a 2.4GHz transponder will also be available for voice operation after initial tests have been completed.

AMSAT-UK will provide a presentation on the project at the AMSAT-UK Space Colloquium from the 29th to 31st of July at the University of Surrey in Guildford.

All radio amateurs and short wave listeners are welcome to attend



National Field Day 1939
Can you identify the operators?

An Introduction to APRS

By John Ronan EI7IG

1 What is APRS

The Automatic Packet/Position Reporting System (APRS)[1] developed by Bob Bruninga, WB4APR, is a lightweight system that allows users to transmit location and other data in single data packets. Normally stations being tracked use GPS receivers to provide real time tracking data.

APRS uses existing packet TNCs (terminal node controllers), Soundmodems and small, low cost micro-controller driven units to transmit standard AX.25 packets on a frequency of 144.800 (144.850 secondary) at 1200 baud. APRS can also be used over HF and satellite links.

APRS is intended as a short-range tactical system; however, APRS systems can be viewed over broad areas using internet gateways. The gateways can be run on low-cost computers, and can mediate the transmission of packets to and from the international APRS-IS system.

APRS is supposed to augment your voice system and should help reduce voice traffic - but is not a replacement for it!

Some applications of APRS have been the following:

- Post Disaster Management
 - Damage assessment
 - Liason tracking
 - Logistics management
 - Site talk in
- Search and Rescue
- Public Service Events
 - Bike Rallies
 - Parades
 - Hillwalking
- Repeater Advertising

2 How does APRS work?

An APRS station broadcasts (beacons) a single packet of information to all stations in range. This packet usually contains GPS co-ordinates and other information. The packet may be received and decoded by any station that can hear it and has suitable software or hardware. Digipeater (Digital Repeater) stations can also hear the packet and rebroadcast it based on rules in the digipeater software and commands that are integral to the packet. Packets that need to travel long distances can also be routed across the public internet.

The fundamental principles of APRS as described by Bob Bruninga are:

- The system should provide reliable real time, tactical digital communications.
- Use a 1200 baud network system operating as an Aloha random access channel.
- You should hear everything nearby or within 1 digipeater within 10 minutes.
- You should hear everything within your Aloha circle within 30 minutes.

3 Whats this Aloha Circle?

In an Aloha network, stations contend for access by waiting to transmit for a random period of time and have not heard any other stations in that period. At 1200 baud, the 144.800 frequency can support 50 or so user stations at reasonable packet

sizes and beacon rates. An Aloha Circle is the radius around you that contains enough stations to fully fill up the channel. This will be unique at any location (Look up <http://web.usna.navy.mil/bruninga/aprs/ALOHAcir.txt>).

There are some problems with this however. The Aloha circle definition is based on the premise that APRS packets take a finite amount of time to transmit and so only a limited number of users may operate in a given area.

Poor station configuration can cause packets to travel too far over RF, causing traffic congestion in distant APRS networks, and thus making the channel unusable for those users.

Also, mis-configured stations can cause digipeaters to bounce a packet back and forth, effectively blocking out all other users in the area. In addition, stations that beacon too fast take transmit time away from other users without getting any benefit because the change in location is too small to be seen on a map (or non-existent if the station is fixed).

This means that the rate at which an APRS station transmits beacons is an important consideration.

The more often a station beacons, the fewer users can use the system. Your beacon rate should take into consideration what you are intending to accomplish and how fast you expect to be moving.

Stations that expect to be moving very slowly over a large area should beacon occasionally (walking/offroading).

Stations that are moving rapidly over a small area should beacon more often.

If you expect to be tracked on a high-resolution map and the person(s) tracking you needs to know exactly where you are, then it makes sense to beacon faster.

Fixed or stationary stations (digipeaters, home stations etc.) should only beacon once every 10-30 minutes

Mobile stations should generally beacon no faster than once every 3 minutes. With a three minute beacon rate, a station will move the following distances at a given speed:

Speed	Distance
100kph	5000m
80Kph	4000m
50kph	2500m
25kph	1250m
5kph	250m

Table 1: Speed vs Distance Travelled in 180 seconds

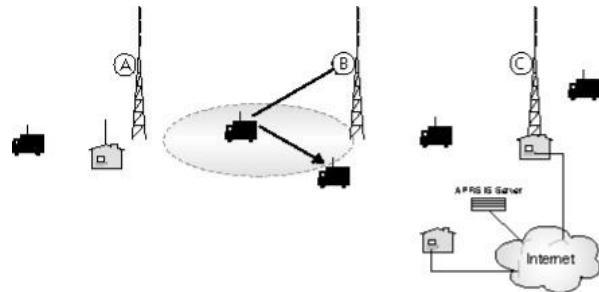


Figure 1: An APRS station beacons and is heard by every other APRS Station in direct range.

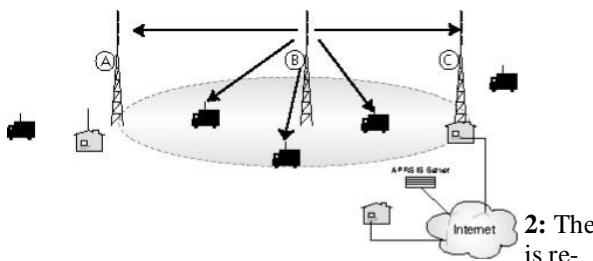


Figure 2: The packet is re-broadcast by every digi than can hear it. The packet is heard by every other APRS station in direct range, including other digi.

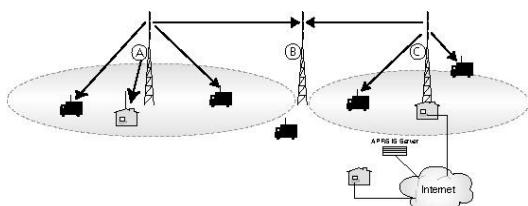


Figure 3: The packet is re-broadcast by every digi that heard the first digi. The packet is heard by every APRS station in direct range of this second set of digis, including the first one.

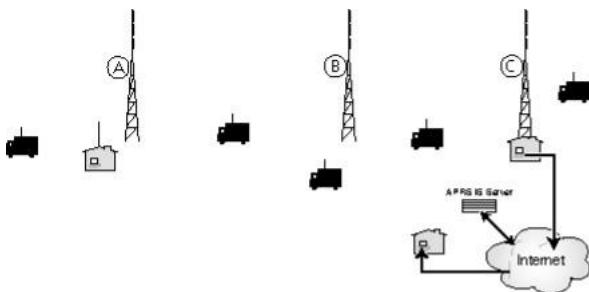


Figure 4: The packet is again re-broadcast by every digipeater in direct range of the second set of digis, including the original digipeater. The new WIDEn-n paradigm (i.e. the use of WIDE2-2 etc) is intended to control this process.

4 Station Types

Digipeaters: A digipeater is a station that retransmits the packets that it hears. There should only be a few digipeaters in a given area i.e. they should have relatively little overlapping coverage. SEARG has the EI2WRC-1 Digipeater up on Mt. Leinster on the primary APRS frequency of 144.800 MHz. It is running APRS specific firmware.

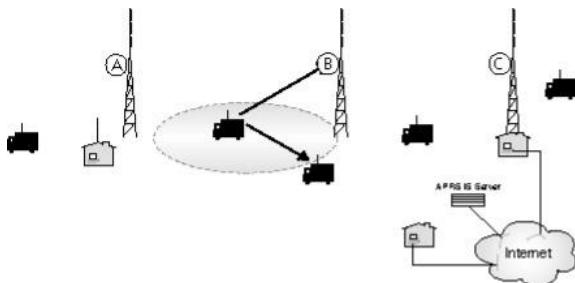


Figure 5: Any packet heard by an internet gateway is transmitted over the internet to an APRS-IS server. This data is relayed out to any APRS software that is connected to an APRS-IS server.

Internet Gateways: An internet gateway relays packets from radio to the internet and vice versa. It can be combined with a digipeater and / or a fixed station and would require a computer and internet connection. Currently there are two in the South East, EI2WRC-3 on 144.800Mhz, and EI3RCW-2 on 144.850.

Fixed Station: A fixed station transmits APRS packets, but remains in one place. It can be used to monitor an area or to transmit local information objects.

Trackers: A tracker is an APRS station that is capable of transmitting a packet containing location information. They are usually small and portable for moving between vehicles. Examples I have used are the Byonics TinyTrack/PocketTracker[2], the opentracker[3], the Kenwood TH-D7.

Mobile Station Usually a tracker semi-permanently fixed in a vehicle. This can include a computer or a suitable GPS for display purposes (e.g. Kenwood TH-D700).

Passive Stations: A passive station only listens to APRS packets, but doesn't transmit anything.

Generally used with a computer just to see other stations (this is what we used at Base for the Galtee walk).

EI3RCW-2 is currently acting as a digipeater and iga (on 144.850) and also as a link for EI3DIB's BBS to receive Packet bulletins. It has links to the dxcluster network and out to the packet radio internet backbone.

Until EI8JA and I have a better way of linking EI3DIB into the packet to internet backbone, this shall remain to be the case. Though 144.850 MHz can be used for APRS around Waterford City, we would encourage everyone to use 144.800 MHz. If and when we solve this problem, we may either put EI3RCW's 2m port onto 144.800Mhz or, more likely, put it on the 145.825Mhz frequency to act as a PCSAT satellite ground station.

I regularly do this while in work. I connect to one of the internet servers that I maintain (<http://ireland.aprs2.net:14501>). This allows me, for example to exchange messages with any APRS station worldwide or track an APRS equipped station anywhere in the world.

5 Configuration Information

You will need to know the following information to configure your APRS station be it software or hardware:

- SSID (Secondary Station IDentification)
- Latitude and Longitude
- Unproto Address
- Beacon Comment
- Beacon Rate
- Status Text
- Status Rate (dealt with above)

Lets briefly examine each one in turn.

5.1 SSID

In Packet Radio you can have up to 15 Secondary Station IDentifiers (SSID's), an example is EI7IG-1 through EI7IG-15. EI7IG without an SSID extension, is considered the 0 (zero) SSID, thus it is possible to have sixteen different stations/calls on the air at the same time using our single call sign.

(Continued on page 14)

(Continued from page 12)

That's where the numbers in the call sign come into play. The added dash numbers (-1-15) are used to distinguish the various station(s) or node(s).

So, your SSID uniquely identifies your station. It consists of your callsign at a minimum and is transmitted every time you beacon. It is very useful when you have more than one station operating simultaneously (mobile/home/portable).

In the early days of APRS, the SSID was used to identify the 'type' of the station for display purposes (its symbol).

Nowadays as almost all APRS devices are capable of having a symbol configured and included as part of the beacon this is no longer required, though this convention is still supported and mostly followed (i.e. -4 a bicycle, -9 signifies a car, -10 a motorcycle, -12 a jeep).

5.2 Latitude and Longitude

Latitude and longitude coordinates are angles that describe your location uniquely on the face of the earth. Latitude runs north and south, with values from 0 degrees at the equator to 90 degrees at the poles. Latitudes also need a N/S identifier. This may be done by setting the value negative for southern latitudes or including the letters N or S.

Longitude runs from 0 to +180 degrees starting at a line running through Greenwich, England and going east. It runs from 0 to -180 going west towards US. This may be alternatively noted by including the letters E or W.

APRS co-ordinates are expressed in degrees, decimal minutes format (+DD MM.mm). That is, the decimal places of the coordinate value are removed from the degrees and multiplied by 60 (i.e. the latitude +32.5000 would be expressed as +32 degrees 30.00 minutes). If you have a GPS connected to your equipment you will not have to enter this manually. The standard settings to use with a GPS are NMEA[4] Out or NMEA In/Out at 4800 baud.

5.3 Unproto Address

There has been huge debate on the 'aprssig' mailing list for the last few months as to what address should be used. Very recently a consensus was reached as to what the paths should be and how digipeaters should be configured[5].

For the South East EI8JA and I recommend that the following paths be used:

Fixed Station WIDE2-1, this should get a packet one hop through the nearest Digipeater and onto the nearest Internet Gateway.

Mobile Station WIDE2-2, as the network expands this should get a packet two hops from (for example) a fringe coverage area into an area with an Internet Gateway

Special Event Stations WIDE1-1, this should keep the traffic fairly local

Digipeaters None, keeps traffic local

Other (less frequently used) addresses that can be used are:

GATE means gate packet to HF

NOGATE, RFONLY means don't gate to Internet

TCPIP, TCPXX, qXX APRS-IS only, not used on RF

As per [5] there is no support for RELAY, WIDE or TRACE in any of the digipeaters or Internet Gateways that we have configured.

5.4 Beacon Comment

The beacon comment is a piece of text that goes out with each beacon. Can be anything you want, as long as it is short Monitoring 145.525 Hi from Your email address (bad idea.. Spambots will get it eventually)

An interesting idea that could be used here comes from Bob Bruninga, which he calls APRS Voice Alert [6]. Basically this means that you do not turn the audio on the radio down, but leave it up and then set a 100Hz CTCSS (or whatever you fancy) tone to mute the speaker. This way you will not hear any packets, but anyone can call you with voice by setting a matching CTCSS Transmit Tone, then you can both QSY for your chat, and when finished you can return to your APRS configuration.

This really only applies to mobile stations as a fixed station transmitting a 100Hz tone would cause serious annoyance to every mobile station within range.

If you so desired, you could announce in your comment the CTCSS tone frequency you were using, thus anyone within range could call you, and then you could QSY. As it is, with the coverage of the repeater system, I think I'll probably put the IRLP node number in here instead, i.e. "monitoring IRLP Node 5883"

5.5 Status Message

The status message is a text message that is transmitted with your beacon, but not necessarily every time you beacon.

Generally you can set your station to transmit your status once every n beacons (where n > 1).

Can be used to transmit the status of your station (i.e.):

- On duty
- On station
- En Route
- Committed
- Emergency

If you are using a Tracker of some sort, or a Kenwood APRS capable radio, please, please, be careful about the "Emergency" setting. Every time an "Emergency" status message gets to the APRS Internet System (APRS-IS), all connected terminals worldwide will be alerted to your 'emergency' and may start calling police stations. This could be your local station or their own in order to get assistance to you.

I can't imagine how a member of the Gardai would react if an American (most likely source) was on the phone telling them that:

*A Mr O'Donnell, EI2**/MM living on a boat near Cork City at the co-ordinates 51 51.00N 008 50.00W needs your assistance immediately!*

Worse still, if they did respond, and they found you sitting down in front of the TV watching re-runs of "The Simpsons". This has happened in other countries. You have been warned!

6 APRS Hardware

6.1 TNC

A TNC (Terminal Node Controller) is a basically a packet modem. One port interfaces to a radio, the other to a computer (or GPS receiver).

A Windows software package called AGWPE[7] can replicate the functions of a TNC, thus reducing the cost of a system. On Linux, the soundmodem[8] package acts in a similiar role, replicating the functions of a TNC.

There are some dedicated low cost devices that take the place of TNCs. These include the Tiny-Trak/PocketTrack and the

OpenTracker, in the 50-100 range. These devices are attached to a GPS receiver and are only for transmitting location data they cannot receive (though the TinyTrak & OpenTracker can detect an open squelch).

6.2 GPS Receiver

There are many GPS receivers to choose from, in many shapes and sizes. Some are more practical than others for specific applications. Garmin and Magellan are common handheld brands. Prices range from €100 and up. Bargains can be had (search on Ebay). Any GPS receiver used for APRS must have a data connection and must output NMEA format data (most do). Pfranc [9] are a cheap source of cables which will allow the powering of a GPS from external 13.8 Volts, instead of internal batteries.

6.3 Radios

Whether you use a Mobile or Handheld (lower power) depends mostly on personal preference. Also, as there is relatively little traffic in Ireland, handhelds should be ok for the foreseeable future. However as the amount of traffic increases (bold assumption!), experience has shown that attempts to use Handhelds have generally been unsatisfactory since the handhelds are having to fight mobile stations putting out 20 to 50 watts. Also worth bearing in mind is that cabling standards can be quite different for each radio/TNC combination. That said, some radios have 'data' DIN plugs that allow for simple, common connections (e.g. FT817/FT7100/FT1500/FT857/FT847 are all identical). There are some radios such as the Kenwood TM-D700 and the TH-D7 that have TNCs and APRS firmware built in, just add a GPS.

6.4 Computers

You only need a computer if you want to see other stations or you want to run an internet gateway or smart digipeater. The one thing to make sure about whether the computer is a laptop or desktop is that it has a serial port to allow you to interface with a TNC/soundmodem. If your laptop/desktop only has a USB port, you can get a USB to Serial adapter for €20 which should do the trick. If you want to run really portable, consider using a palm device or a pocketPC (such as a Compaq iPaq). These are really good if you want to be pedestrian-portable but still need to see other stations. The TH-D7 & Garmin Foretrex can also accomplish this but instead of viewing the stations on a computer, you are looking at them on the screen of the GPS.

7 Getting Set Up

GPS to TNC and TNC to Computer connections are generally RS-232 connections (more on this later) These tend to use either 9 pin or 25 pin DB connectors. RS-232 connections were intended to connect a computer (DTE) to a piece of communications gear (DCE). If you are not sure which pin is the transmit pin and which is the receive, check the voltages between pins 2 and ground and also pin 3 and ground. Generally the pin with a negative voltage is the transmit pin. This should be connected to the receive pin on the GPS and vice versa.

TNC to radio connections are custom depending on both the TNC and Radio. Most Computer to GPS, GPS to TNC and Computer to TNC connections use RS-232 connections.

The physical connector at the GPS receiver is often proprietary, forcing you to buy from them.

Garmin has a range of 3rd party connectors available (eBay and pFranc). The physical connector at the computer (or TNC) end is usually a DB-9 9 pin connector. Other connectors are possi-

ble (a stereo miniplugin, is used by the Kenwood TM-D700/PocketTracker).

You can test your GPS by plugging it into your computers RS-232 port and configure a terminal program (such as Hyper-terminal/Minicom/Zterm) to look directly at the comm port rather than a modem. The most standard data configuration for GPS is 4800 baud, 8 bits, 1 stop bit, no parity. You may have to configure your GPS for is NMEA (maybe NMEA OUT / NMEA IN).

NMEA stands for National Marine Electronics Association, and is a standard that defines all sorts of connection standards for shipboard navigation equipment.

7.1 GPS Accuracy

If accuracy is how correct a position is, with precision being how finely resolved a position is, then GPS positions are often very precise, but not that accurate (switch on your GPS with a clear sky, sit still and watch the numbers slowly change). Accuracy is influenced by environmental factors including ionospheric distortion and satellite geometry.

Consumer grade GPS receivers are accurate to 30 meters (90 feet), some are a bit better. Some receivers have WAAS (Wide Area Augmentation System), a separate correction signal that adds additional accuracy, down to about 5 meters (I've yet to see it work properly here, though I have seen some extra satellites appearing now and again).

8 Software

If you want to see APRS stations, you'll need some software. There are software packages for most operating systems:

- Dos: AprsDos
- Windows: WinAprs, UIView, APRS+SA, APRSPoint, Xastir
- Mac: MacAprs, Xastir
- Unix: Xastir
- PocketPC: APRS-CE
- Palm: PocketAPRS, PalmAPRS

And some internet based services such as findu (i.e. <http://www.findu.com/cgi-bin/find.cgi?EI7IG-9>) For comparisons, see WE7Us list at: <http://www.eskimo.com/archer/aprscapabilities.html>

If you wish to connect to an Internet Server I would suggest connecting to Ireland.aprs2.net port 14579. Look at <http://ireland.aprs2.net:14501> for more information on the ports available.

8.1 Does this APRS stuff work?

In short Yes! To keep the channel active locally, I've currently configured the Node in Templetown EI2WRC-3 to automatically track and transmit satellite objects for the satellites vo52, ao51, iss, so50, and uo22. If you have a Kenwood APRS radio switched on and tuned to 144.800Mhz you should, after a few minutes, see a list of satellite objects along with other stations that are active, this will include:

EI8JA his Weather Station is running 24x7.

EI2WRC-1 APRS Digi on Mt. Leinster.

EI2WRC-3 APRS Igate/Digipeater in Templetown.

EI7M-1 APRS Digi in Cork (should be operational by the time you read this).

Depending on the time of day you may also see:

EI7IG-9 mobile on my way into or from work (Status will be On-Duty)

(Continued on page 16)

(Continued from page 14)

EI7IG-5 walking (most likely in the hills somewhere)
EI8JA-9 mobile
EI8FRB-9 mobile
EI5HW mobile on his way into work or following a balloon somewhere

As well as many other stations (EI and others) that are able to hit either the Templetown or Mt. Leinster Digipeaters.

8.2 Discussion

In summary, APRS is a real-time tactical digital communications protocol for exchanging information between a large number of stations covering a large (local) area. As a multi-user data network, it is quite different from conventional packet radio.

APRS turns packet radio into a real-time tactical communications and display system for emergencies and public service applications (and global communications). Normal packet radio has only shown usefulness in passing bulk message traffic (Email) from point to point. It has been difficult to apply conventional packet to real time events where information has a very short life time and needs to get to everyone.

Although the recent interfaces to the Internet make APRS a global communications system for live real-time traffic, this is not the primary objective.

How we use APRS in an emergency or special event is what drives the design of the APRS protocol. Although APRS is used almost all of the time over great distances, and benign conditions, the protocol is designed to be optimised for short distance real-time crisis operations.

APRS provides universal connectivity to all stations by avoiding the complexity and limitations of a connected network. It permits any number of stations to exchange data just like voice users would on a voice net. Any station that has information to contribute simply sends it, and all stations receive it and log it. Secondly, APRS recognises that one of the greatest real-time needs at any special event or emergency is the tracking of key assets. Where is the Scene Co-ordinator? Where are the emergency vehicles? In order to provide for these scenarios, APRS is a full featured automatic vehicle location and status reporting system too.

Although most APRS software can automatically track mobile GPS equipped stations, it also tracks perfectly well with manual reports. Additionally, any station can place an object on his map including himself and within seconds that object appears on all other station displays. In the example of a parade, as each checkpoint with packet/APRS comes on line, its position is instantly displayed to all in the net. Whenever a station moves, (s)he just updates his position on his map and that movement is transmitted to all other stations. To track other event assets, only one packet operator needs to monitor voice traffic to hear where things are. As (s)he maintains the positions and movements of all assets on his screen, all other displays running APRS software display the same displays[11].

Some Radios such as the Kenwood TM-D700 have APRS built in, this allows it to be used completely independently of a computer. If it is used as a home station, and the position is programmed into the radio, a distance and bearing to all received stations is available on the display, and short messages can be exchanged with other stations on frequency. With the addition of GPS to this radio (and indeed its smaller brother the TH-D7), the mobile station can be tracked in real-time on the console of any other APRS capable radio or on the screen of any

APRS equipped computer.

Also, if the connected GPS is capable of storing waypoints, the TM-D700 can be configured to put waypoints into the GPS of received APRS equipped stations. These Waypoints can then be used as 'gotos' and, in some cases, one can navigate towards one of these points, even if it is moving (the radio keeps updating the GPS, which keeps recalculating the distance and bearing to the station).

Things change slightly with the addition of an Internet Gateway (or Igate). An Igate takes the packets heard on RF and pushes it into the APRS internet backbone. Briefly, there are several core [12] servers that exchange all packets between them, there are also second tier[13] servers which connect to these core servers. The purpose of these is to reduce the load on the core servers.

I run a tier two server (<http://ireland.aprs2.net:14501>) on a server belonging to my (most benevolent) employer[14] hosted in HEAnet[15] in Dublin. The Igate which is running in Waterford IT (EI3RCW-2) is connected into this aprs-is server as well as is Igate in Templetown (EI2WRC-3).

Both send all (received from RF) position reports and messages up to ireland.aprs2.net, and also receive (and transmit to RF) all messages destined for a local APRS station. This allows someone removed from the situation i.e. in a different country, to see what is happening in an area around an Igate. This allows me, for example, to monitor APRS activity while I'm in work with no radio.

I connect my APRS application, Xastir[16] to the ireland.aprs2.net, as the Igates receive packets on their RF ports they forward them to the tier 2 server, which sends them back down to me (and other clients) and also forwards those packets onto one of the core servers.

Users are encouraged to use the tier two servers, as it helps reduce the load on the core servers. If you are looking for an internet server to connect to I would recommend ireland.aprs2.net. Use port 10155 if you wish to see all the APRS data for europe, port 14578 for just the UK or port 14579 for Ireland. The primary frequency for APRS in Ireland is 144.800MHz, have a listen out, you might just be surprised at how many stations are within radio range.

9 Acknowledgements

This article is largely based on a presentation given by John Beadles N5OOM[17]. Many thanks to John McCarthy, EI8JA for his work on the Packet Network in the South East and to Mr Kristian Walsh for asking difficult questions.

APRS is a registered trademark of Bob Bruninga, WB4APR

References

- [1] *A brief history and bibliography of APRS*, <http://web.usna.navy.mil/~bruninga/APRS-docs/ARTICLES.TXT>
- [2] *Byonics - Electronic Projects for Amateur Radio*, <http://www.byonics.com>
- [3] *Opentrac*, <http://www.opentrac.org>
- [4] *National Marine Electronics Association 0183 Standard*, <http://www.nmea.org/pub/0183/index.html>
- [5] *Fixing the 144.39 APRS Network*, <http://web.usna.navy.mil/~bruninga/aprs/fix14439.html>
- [6] *VoiceAlert*, <http://nwp.ampr2.net/nwaprs/VoiceAlert>
- [7] *AGW Packet Engine*, <http://www.elcom.gr/sv2agw/agwpe.htm>
- [8] *Multiplatform Soundcard Packet Radio Modem*, <http://>

(Continued on page 17)

(Continued from page 16)

- www.baycom.org/ tom/ham/soundmodem/
- [9] *Garmin cable, eTrex & Geko cables*, <http://www.pfranc.com/>
- [10] *DIGI NED @ QSLNET*, <http://www.qsl.net/digi ned/>
- [11] *Automatic Packet/Position Reporting System*, <http://web.usna.navy.mil/bruninga/APRS-docs/APRS.TXT>
- [12] *Automatic Packet Reporting System - Internet Service*, <http://www.aprs-is.net>
- [13] *APRS Tier 2 Network*, <http://www.aprs2.net>
- [14] *Telecommunications Software & Systems Group*, <http://www.tssg.org>
- [15] *HEAnet - Irelands National Educational & Research Network*, <http://www.heanet.ie>
- [16] *Xastir*, <http://www.xastir.org>
- [17] *Intro to APRS - J. Beadles N5OOM*, <http://www.n5oom.org/2004 hamcom/presentations.htm>
- [18] *Bob Bruningas web site*, <http://web.usna.navy.mil/~bruninga/aprs.html>
- [19] *TAPR APRS Standards doc and various email discussion lists*, <http://www.tapr.org/>
- [20] *Joe Mehaffeys huge web site*, <http://gpsinformation.net/>
- [21] *Garmin GPS*, <http://www.garmin.com/>
- [22] *Radio to TNC cables*, <http://www.packetradio.com/wiring.htm>

EI Nets

6 Metres

A monthly six metre FM net meets on the first Monday of each month on 51.525 MHz FM using vertical polarisation at 9.00 p.m. local time. The purpose of this net is to increase activity on the 6 metre band.

All are welcome and encouraged to participate.

4 Metres

The monthly 4 metre activity nights are held on the first Tuesday between 8.00 and 9.00 p.m. local time.

Operators who are equipped for 70 MHz are invited to listen out for and join in any activity on 70.2626 MHz FM.

QRS CW

A weekly QRS CW net is held on Monday evenings on 3.567 MHz at 1900 hours. Net controller is Ron EI2JP.

The purpose of this net is to promote a minimum CW proficiency by conducting an informal net combining code practice and on-air participation.

The format of the QRS net is a short paragraph or two followed by check-ins and is wrapped up with another paragraph or two for additional practice.

The practice sessions are sent at 6 words per minute.

Regardless of ability, you are encouraged to join in.

Further information can be obtained from EI2JP or from the Kerry Amateur Radio Groups web site at www.kerry.com.

This net are suspended for July and August and will resume on the first Monday in September.

Limerick Radio Club

70cm Repeater

Status 3rd July 2005

The new repeater has completed testing phase and will be installed on site next week between 11th and 15th July. The site is not Keeper Hill.

Good 70cm coverage is expected in West Clare, most of Limerick and parts of East Kerry, Tipperary South Riding and North Cork.

Low power "rubber duck" handheld access should be available in Shannon Town and Limerick city.

There may be mobile or base station access in Mallow, Blarney, Tralee and Tipperary Town.

Please send reports to Mike ei9feb@eircom.net

The actual location will be announced in a few weeks, so have fun guessing QTH and trying to access it!

The settings are 433.125 for your RX and 434.725 MHz on your TX (standard RB5, 1.6MHz + split) with CTCSS or PL Tone of 103.5Hz.

The RB5 repeater is permanently linked to Limerick R5 (145.725, -600 KHz shift) which uses 1750 Hz tone burst to open.

Operation

Listening on 2 metres you can tell if a QSO is with a 70cm user as a distinctive "tuning fork" mechanical tone burst will preface every 70cm transmission.

2m to 2m QSO sound as before.

Listening on 70cm, a 70cm QSO has no preface, but a tail of three beeps, the first is the 70cm "pip", the second indicates the 2m link is active and the 3rd is the pip from the 2m repeater.

It is after a slight pause (in the 2m repeater controller), so wait for it or 2m will "time out".

A 2m QSO heard on 70cm simply has the 2m pip at the end of each over, no 70cm pips.

Extra Features

On "70cm RB5" any DTMF tones are "blanked" by the controller. If you need to send DTMF via the controller prefix it by "5".

If you want to test your DTMF keypad on 70cm, press "# 5" and you will hear the ident in CW.

To echo any keypad DTMF, press "# 8" and it will echo in CW.

This feature turns off after about 45s of no carrier.

If emailing a report please indicate aerial type, power, QTH and whether a handheld, mobile or base station.

Michael Watterson EI9FEB

11 Laurel Park, Patrickswell, Co. Limerick
061-215 842 085-740 3830

Dayton Hamvention 2005

By Tony Breathnach EI5EM

I am fortunate in having a brother living about 250 miles north of Dayton, Ohio, which hosts the annual Hamvention in the Hara Arena. For the fourth time in as many years, I killed two birds with the one stone by combining attendance at the Hamvention with a visit to my brother and his wife. The Hamvention took place over the weekend of 20-22 of May.

On the eve of the show, I drove the 230 miles from Fowlerville, Michigan to the small town of Troy just north of Dayton. The drive was mostly in torrential rain. It was frightening at times when the spray from other traffic, especially from trucks, reduced visibility to almost nothing. Thankfully, as I neared Troy, the sky cleared and the sun came out.

Troy is a picturesque little town with a pretty town centre dating from a bygone age. I checked in to my motel, showered and changed before having a meal in the Ruby Tuesday restaurant. I hit the hay early in preparation for the morrow, praying that the weather would be kind.

My alarm clock woke me at six. I had breakfast in Frisch's Big Boy Restaurant and was on the road by 7:30 am. The expansive Hamvention car park is just an open field, which was quickly filling by my arrival. One previous year areas of the car park became water-logged and some unfortunate drivers had to pay a very busy but opportunistic tow-truck operator to pull them clear. That year it took me a good bit of manoeuvring to extricate my rental car. Thankfully I didn't have to cough up for towing cost. Parking fee this year cost \$8 per day, and entry to the Hamvention \$25 for the three days.

The outdoor flea-market opened at eight. This year I found it disappointing. It was not as extensive as in previous years and was a bit scattered in that there were several large vacant areas. This detracted from the atmosphere of the market. There was a lot of used equipment on sale both recent and vintage. However, I had to constantly remind myself of airline weight restrictions and I hadn't even been indoors yet.

The only items I bought outdoors were two 500-gramme reels of lead-based solder. This is now becoming scarce due to safety concerns over its lead content. I deserted the flea-market for the main exhibition halls as soon as they opened at nine. I would make several further forays to the flea-market during the show. I wasn't long inside before I came across two other EIs, Nick EI9JF and Brendan EI4BB. Nick had previously emailed me to say that he would be there and I had given him a few survival tips. We had a chat, took some photographs and discussed our strategies for the show. I didn't come across them afterwards, so I don't know how they got on. I have no doubt that they enjoyed their first Dayton expedition.

At the Hara Arena there are several indoor halls housing about five hundred exhibitors. The big three, Icom, Yaesu and Kenwood all had extensive exhibition

space. I collected my free Yaesu baseball cap and a wallet containing toothpaste, toothbrush and comb (Hi!) from a pretty young Icom lady dressed in night attire and a bathrobe. Icom was launching a new rig early the following morning and this was a pre-launch publicity stunt, reminding everybody to be there at the crack of dawn.

All of the other major manufacturers, Alinco,

MFJ, TenTec, SGC etc. were well represented. Being the owner of an SG-2020, a KX1 and a K2, I spent a considerable amount of time at the SGC and Elecraft stands.

The two largest retailers in the USA, HRO and AES had their stands in the basketball arena. Both were doing brisk business, although prices of imported black boxes were considerably up on last year. I assume this was as a result of the weak US dollar.

For example, the IC-706MKIIG was up from \$750 last year to \$950 this time.

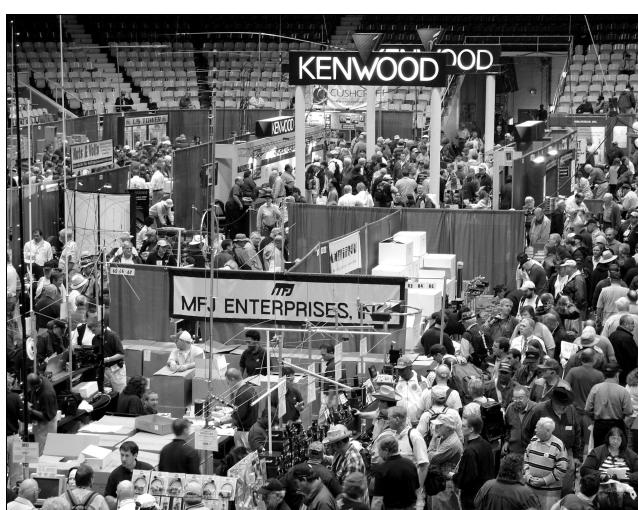
A 100-Watt broadband HF linear amplifier was top of my shopping list as an accessory for my 10-Watt SGC rig. To my amazement, I was informed, at the SGC stand, that the FCC has banned these because of misuse by CB operators. Now, I would have had no difficulty in legally purchasing a 500-Watt or a Kilowatt amplifier, but a 100-Watt was taboo! Does this imply that high-power amplifiers are not misused by CB operators?

There were plenty of smaller exhibitors selling all sorts of items related, and unrelated to amateur radio. I made several purchases of components and bits and bobs at bargain prices, but no major purchases yet. I did however buy a Vectronics memory keyer kit for \$70. As is typical of most amateur radio shows these days, there was a lot of computer related equipment on sale, but I had no real interest in any of this.

Some of you may remember, from my



Tony EI5EM, Nicki EI9JF and Brendan EI4BB



report in 2004, that I mentioned The Suspender Man, Bob Coulbourne, W4FTD. He supplies personalised suspenders with the owners' callsigns embroidered on them. I had to explain to Bob that the word "suspenders" has a different meaning and connotations in Ireland. He had a good laugh when I explained the difference. What Bob was selling is what we would call a pair of braces. Bob was there again this year and I took a photograph of him and of his display. However, I resisted buying a pair of my own personalised suspenders!

I paid my respects to most of the exhibits



that day, dallying longer at the more interesting ones. Catering facilities were not good and only light snacks were available. There was no place to have a proper sit-down meal. This, and the pure scale of the place can have its effects on the body, and by mid-afternoon I began to wilt. After all, tomorrow (Saturday) would be another day. In the meantime, I could peruse all the literature and catalogues that I had picked up to plan for the following day. I drove back to Troy, had a hot shower and a good meal. I retired reasonably early that evening to recover from the activities of a hectic day.

I had a ticket for Lord of the Dance, which was taking place in Michigan State University (MSU) on Saturday evening. This meant that I would have to leave Dayton around midday to allow for the drive back. I arrived at the Hamvention for eight o'clock and reconnoitred the flea-market one final time before the main halls opened at nine. I still had made no large purchases and had nothing in mind. However, I couldn't come home empty-handed now, could I?

The crowd quickly built up on the Saturday morning and it became quite oppressive before too long. Motorised buggies were available for rent and this added to the overcrowding.

Some of these even had trailers in tow!

Many of you will know that I am interested in the setting up of a permanent amateur station in the Howth Martello Museum. As I hadn't bought anything substantial for myself, I decided not to let the opportunity pass to acquire some equipment for that cause.

I purchased a Yaesu FT-7800 vhf/uhf transceiver and a 28 Ampere switch mode PSU with that end in mind.

My final purchase was an MFJ Morse Code/Data decoder for my shack. This is not something that I really need, nevertheless it is something nice to have and to play with.

There were several forums taking place in conjunction with the Hamvention and I dropped in on one of these. The topic was homebrew transceiver kits. The launch of a new HF transceiver kit is expected shortly and is expected to cost about \$6,000! It must be some kit!

The supplier's name escapes me. It was unfortunate that I ran out of time and couldn't attend more of these enjoyable and interesting lectures. They also provide an opportunity to sit and rest a while. Around midday, I reluctantly left the 2005 Hamvention for the four-hour drive back to Fowlerville.

Packing all the goodies into my baggage would be the problem. I always take the expensive equipment in hand baggage. In previous years this resulted in detailed security examination of the contents at airports. However, this time all went without a hitch at Detroit, Chicago and Heathrow airports. And I got a free upgrade on the Chicago-Heathrow leg home to boot. This was an excellent way to end another most enjoyable Dayton adven-



ture. What about Hamvention 2006?

Well, let me get over 2005 first!

The web address for the Hamvention is www.hamvention.org.

(C) Copyright 2005 Tony Breathnach

E-mail: ei5em@eirc.com
Website: www.qsl.net/ ei5em



In The Wake Of The Bounty

By Dave Ryan EI4HT

I wonder what Captain Philip Carteret would have done had he had a can of WD40 onboard the HMS Swallow. He may well have used it to lubricate his cabin door hinges so as not to be disturbed when plotting the ships position on Friday the 3rd of July 1767.

He certainly would not have used it to lubricate and shine the ships Chronometer, as just like a can of WD40, he did not have a chronometer either, an accurate ships clock used in calculating Longditude.

So when a Young Midshipman, son of Major Pitcairn of the Marines, sighted land to the Northward, not only were the hinges squeaking but the ships position was miscalculated by 3 degrees 24 minutes, thus marking the Island of Pitcairn 188.4 Nautical Miles west of its actual position.

Unlucky for Captain Carteret and the Admilitary, but very lucky for Fletcher Christian and his fellow Mutineers on HMAV Bounty. It would not be until 1808 that Captain Mathew Folger on the Topaz would rediscover Pitcairn and correctly mark its position. I don't suppose he had any WD40 either.

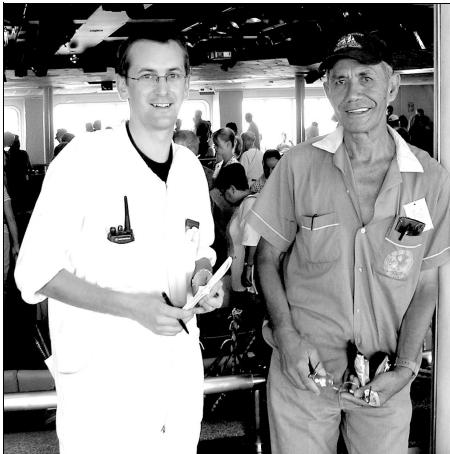
Pitcairn Island lies halfway between the Panama Canal and New Zealand in the South Pacific Ocean and is perhaps best known as the home of the descendants of the Bounty Mutineers. The history surrounding the mutiny to this day remains for the most part a mystery and has been the subject of many books and films.

Today, the descendants enjoy a very different lifestyle to that of their ancestors. The Island has its own Post office, general store, Health Centre, School, News Paper, Museum, Craft industry and Radio Amateurs.

Earning a living on Pitcairn depends in part on the sale of carvings, handicrafts and the export of honey and honey products.

Sales of postage stamps, phone cards and coins to collectors contributes to the public economy.

Trading aboard passing ships provides the islanders with a large portion of their income, and is how I arrived at Pitcairn on the MV Discovery.



Dave Ryan EI4HT with Tom Christian VP6TC.

The MV Discovery, famous in her own right was originally the MV Island Princess that featured in the TV series "The Love Boat"

She carries 750 passengers on voyages of discovery to all parts of the world, Antarctica, South Pacific, Caribbean, Mediterranean and even Ireland.

Built in 1971 in Germany and propelled by 4 Fiat medium speed diesel engines, she displaces 15,685 tons and is good for 19 knots, a far cry from Captain Bligh's oak and canvas Bounty.

I joined the Discovery in early January as an Engineering Officer.

The Bounty too was renamed. Originally the coastal trader Bethia, she was refitted and christened His Majesty's Armed Vessel Bounty.

Under the command of Captain William Bligh, she set sail from Spithead on the 23rd December 1787 bound for Tahiti to collect breadfruit seedlings that were to be transported to the West Indies and cultivated into food for slaves.

Following a difficult voyage, Bounty arrived in Tahiti on the 26th October 1788. Having spent 5 months on the island and reluctant to return to England, Fletcher Christian and some of the crew mutinied.

Captain Bligh and 18 of his loyal crew were set adrift in an open boat.

Their voyage back to safety is recorded as one of histories great survival stories.

Meanwhile Christian and his mutineers finally arrived at Pitcairn in January 1790 where they burned the Bounty for fear of her being spotted by passing ships and revealing the location of the mutineers.

It was quite easy for us to find Pitcairn using accurate charts, accurate Chronometer and of course the Global Positioning System.

Upon arrival we were greeted by the Islanders in their long boat called Moss. Too much of a swell to test our tenders and seamanship, so the passengers would have to be content with the view of the island and a visit from the locals.

A bag of Pitcairn soil to touch and walk on was as close as anyone would get to being on the Island.

The show lounge onboard was converted into the gift shop and our visitors were quick to set up shop and begin trading postcards, carvings, tee-shirts, caps, and plenty more for the passing tourists.

Peter thought it was just like a radio rally without the junk, there was certainly enough Hams there.

Peter VE3AVZ and his wife Valerie joined the Discovery in Valparaiso for a South Pacific Cruise.

We bumped into each other when the ship called at Robinson Crusoe Island, and the conversation quickly came around to radio, as it does. So as soon as our visitors were onboard we were quick to introduce ourselves.

Meralda Warren VP6MW is known locally as Maimit named after Fletcher Christian's wife. I believe Meralda is the island's police officer. She is active on 21.422 on Sundays at 2300 UTC.

Terry Young VP6TY, a descendant of Midshipman Edward Young of the Bounty, Denis Christian VP6DR Island Post Master and his mother Irma Christian VP6ID both descendants of Fletcher Christian, can be heard around 14.380 at 1830 UTC.

Tom Christian VP6TC gave a most interesting (Continued on page 21)

(Continued from page 20)

esting lecture on Pitcairn and Island life. Tom is also the islands Communications Officer and has made over 100,000 contacts from Pitcairn, easy when you are the DX.

Communication from the Island began in 1921 by Morse Code on the lamp to passing ships.

The Marconi company installed the first crystal receiver on Pitcairn in 1922 and by 1938 the first transmitter and receiver were in use.

Regular communications were established in 1940 and improved in 1944 when Pitcairn became a Meteorological station.

In 1992 Pitcairn entered the era of satellite communications using the new Inmarsat A system and this was upgraded in 1998 to the Inmarsat M Planet 1 system allowing phone and fax communications and in more recent times access to the internet.

The first Amateur Radio operations from Pitcairn were by Andrew Young in 1938 using the callsign VR6AY.

Since the handover of Hong Kong, Pitcairn has changed callsign to VP when VR was returned to Hong Kong.

The Pitcairn Island Amateur Radio Club VP6PAC is also the official operator of Pitcairn Radio ZBP.

Tonight onboard Discovery it is business as usual, engines full ahead for Tahiti in 2 days, regular sea watch on the Bridge, galley in full swing for the restaurant and our new friends behind us singing as we departed " In the sweet bye and bye, we shall meet on the beautiful shores ".

I can't help but wonder what Tom Christian wanted a can of WD40 for, maybe for a squeaky door or a rusty old chronometer but it was a small price to pay to meet Tom Christian MBE, Great Great Great Grandson of Fletcher Christian, leader of the Mutineers of HMAV Bounty 1789.

Dave Ryan
M.V. Discovery
Pitcairn Island

HQ Station Award in IARU Contest

The Polish Telegraphy Club and the Polish Radio Amateur's Journal are sponsoring the 2005 Worked HQ Stations award for working HQ stations during the IARU HF Contest.

The basic W-HQ-S is earned for 10 QSOs with HQ stations representing all three IARU Regions.

Special endorsements are available for each 10 additional QSOs/HRDs.

Rules and picture of the W-HQ-S Award - Web URL <http://whqs2005award.prv.pl/>

Waterford Rally

The Waterford Rally will take place on the 16th of October 2005 in the McEniff, Ard Ri Hotel, Waterford.

Special room rates are available for those attending the rally.

Bed and Breakfast for 2 nights plus one dinner is €89.00 per person sharing.

Bed and Breakfast for one night plus 1 dinner is €55.00 per person sharing.

A €19.00 single supplement applies.

For information contact Michael Hoban, EI5DCB on 051-873310.

Mayo Rally

The Mayo Radio Experimenters Network Rally be held on Sunday November the 20th at the usual venue, the Belmont Hotel, Knock. Doors open at 11:00 a.m. Bookings for accommodation should be made directly with the hotel.

The rate is €50.00 per person with a special all-in rate of €70.00 for Bed & Breakfast and evening meal.

Traders should contact Padraic Baynes EI9JA for exhibition space.

Worked All Ireland

Given the currently poor conditions on 40 metres, the WAI net is moving from its usual frequency of 7.068 to 3.680 MHz in the 80-metre band.

Mobile activity would be very welcome now that the summer is here and many counties are totally inactive on the net. Please give a call.

Tipperary Amateur Radio Group

Ballyhoura Bears

Once again members of the Tipperary Amateur Radio Group were on the hills to help with the Ballyhoura Bears walking event over the first weekend in May.

There was 3 days of walking in total with Saturday's Marathon Challenge being the highlight event. There was nearly 100 entrants in this year's marathon (A walk).

B walks were even more popular with over 130 participating on Sunday's walk in the Galtee's.

The Tipperary Amateur Radio Group members accompanying the Bears on the 'A' walk was Eddie EI3FFB while EI3ENB travelled with the 'B' walkers, Tommy EI2IT and Andy EI5JF kept control at base. Thanks to everyone who helped at the event.,



Paul EI3ENB and Tommy EI7IT



Andy EI5JF and Eddie EI3ENB

Contest Corner

With EI4BZ

Welcome again to Contest Corner.... As I write this piece, the VHF/UHF Field Day is drawing to a close and I managed to make the usual handful of QSOs on 2 metres SSB.

Conditions seemed very good early in the contest and seemed to slow for the second day.

I only heard two EI stations operating portable.

EI9E/p were once again on White Mountain and were QRV on 2m, 4m, 6m and 23cms and made about 800 QSOs on all bands.

The Tipperary Club were active from a site near Helvick Head and their entry will be in 2m only section.

However, some members activated other bands from time to time.

Nice to see an increase in participation in CW Field Day and it's a pity that the central location did not work out.

SSB Field Day will be held on the weekend of September the 3rd and 4th. Now is the time for clubs and groups to be putting the plans in place. A central venue will be used if there is sufficient interest but stations will still be welcome to set up independently if they wish. It only takes two or three people to get up and running in the restricted section, so get that tent or caravan and generator organised now.

The next big event is the IARU HF Championships in Mid July and EI0HQ will again be active representing the Society. This year Thos EI2JD is co-ordinating the event.

The IOTA contest is on over the last weekend in July and lets hope that's last years drop in EI/EJ participation is reversed.

EJ2MT will again be on from Bere Island trying improve on last years 4th position. Sean EI4GK and crew are heading to an island off Donegal and South Dublin Radio Club are off to the Aran Islands.

Have a look at the records on page 27 and see if you can do better.

Catch you in the contest or maybe see you in Ballinasloe for the SSB Field Day in September.

Dave EI4BZ

CW Field Day

2005

The CW Field Day, which was held over the June bank holiday weekend, attracted five portable entries this year. The weather was mixed and propagation conditions were reported as being good.

EI3Z/P Shannon Basin Club

Last years restricted section winners, the Shannon Basin Radio Club, defended their title from their usual location in Ballinasloe and were using their newly refurbished club caravan for the first time.

They reported a good turnout of members and an improved score.

They used the callsign EI3Z/P.

EI1C/P Cork Radio Club

Cork Radio Club operating as EI1C/P set up their caravan at the Old Head of Kinsale but problems with their generator forced them to abandon the operation after a few hours operation when the batteries went flat.

EI5GE/P Joe Leahy

Joe EI5GE/P operated from near Bansha in Co. Tipperary as a single operator and first time entrant in the field day.

He operated from the car with paper logging and set up in a wood to avail of the trees for aerial supports.

He enjoyed the experience and we look forward to hearing him again in future outings.

EI7M/P East Cork Group

The East Cork Group EI7M/P was active from Athboy in County Meath on a site organised by East Cork Group member but Co. Meath resident Steve EI9HC.

Steve has been travelling south for field days and other contests for several years and it was time to give him a home venue.

EI7GY/P Joe Ryan

Joe Ryan EI7GY again working as a single operator also travelled to Athboy and operated from the same big field as Joe EI7M/P.

This years event attracted a record entry and it has been a long time since five portable stations were out on CW field day.



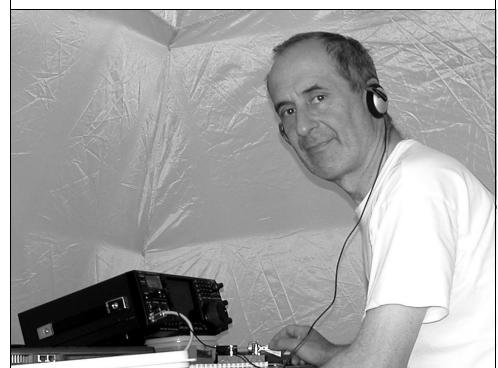
Anatoly EI4JF operating at the Cork Radio Club CW Field Day station on the Old Head of Kinsale on June 4th 2005



Steve EI9HC operating EI7M/P in the CW Field day 2005 in Athboy, Co. Meath,



Dave EI4BZ operating EI7M/P in the CW Field day 2005 in Athboy, Co. Meath,



Joe EI7GY operating EI7GY/P in the CW Field day 2005 in Athboy, Co. Meath,



Tipperary Group members at their VHF/UHF Field Day site near Helvick Head on July 2nd 2005.
John EI2JB and Junior Op, John EI7IG, Tommy EI7IT, Paul EI3ENB and Andy EI5JF

Picture Andy EI5JF

Howth Peninsular Festival

The Howth Peninsular Festival took place over the weekend of July 2/3rd.. Among the many events that took place was the operation of an amateur station from the Martello Tower, which houses "Ye Olde Hurdy Gurdy Vintage Radio Museum".

The station was active on SSB, CW and FM on HF and VHF but was somewhat curtailed in its operation by the large number of visitors to the museum.

Tony EI5EM and Joe EI4FV looked after the station and were kept very busy answering queries from interested visitors.

The museum is well worth a visit for anybody interested in radio and all the information is on the museum's web page at www.qsl.net/ei5em/museum.html.

SSB Field Day September 3/4th.

Please indicate your interest to the Contest Manager Noel EI2JC
ei2jc@hotmail.com

Spring Counties Contest 2005 Results

High Power Fixed		Qs	Co.	Total	
1	Niall Foley EI4CF	40	16	2592	GY

High Power Portable

1	EI2WRC	42	21	4578	CW
2	GI4SRQ	48	18	3636	AH
3	MN0LBA	37	14	2390	DY
4	EI4HS	33	11	1639	WX

Low Power Fixed

1	EI9JF Nicki Mullaly	37	14	1960	KE
2	EI4BZ Dave Moore	43	13	1612	CK
3	EI7HT Tom McGrath	40	13	1573	DD
4	EI3ENB Paul Norris	31	11	1199	KK

Low Power Portable

1	EI7GY Joe Ryan	69	21	6846	OY
2	EI6JK Mark Condon	31	10	1090	DD

FM Only

1	EI8IU Brian Canning	49	24	6000	LD
2	EI6IW John Edgeworth	38	19	2755	TY
3	EI4JL Mick Gorman	33	16	2112	DD
4	EI2HX Pat Fitzpatrick	25	15	1830	LH
5	EI4HX Peter Grant	29	12	1728	LH
6	EI3IX Joe Fadden	20	13	1105	MO
7	EI3FFB Eamonn Kavanagh	21	13	819	TY
8	EI9FVB Declan Horan	23	9	738	KY

The Spring 2 Metres Counties Contest took place on Easter Monday March 28th 2005.

A total of 19 entries and 1 check log were received by the closing date. It is good to see an improvement again in the entry levels, which had been falling.

The majority of logs were received by e-mail. The standard of logs was very high with very few logs falling foul of my red pen. The fact that most are submitted electronically means that legibility is not a problem, that said I had no difficulties with the hand written logs.

All scores were verified and as far as possible cross checked against other logs received.

As can be seen from the results above, the FM section attracted the largest entry whereas Fr. Niall EI4CF was the sole entry in the High Power fixed section. Notable scores include Brian EI8IU who eclipsed all the other entries in the FM section with the highest multiplier across all sections of 24 counties.

Joe EI7GY has the highest score and QSO count winning the Low Power portable section operating from Arderin, the highest point of the Slieve Bloom Mountains. In all many excellent scores were recorder and the overall level of participation is very encouraging.

A feature of this event was the high level of activity from GI, which certainly help the stations in the midlands with their multiplier counts.

We look forward to another good turn out for the Autumn event on the last Sunday in August.

Noel Walsh EI2JC, IRTS Contest Manager

Southeastern Amateur Radio Group AREN Presentation



Pictured: John McCarthy EI8JA (SEARG Chairperson), John Ronan EI7IG, John Ketch EI2GN and John Costello EI9ESB (AREN).

At the May general meeting of South Eastern Amateur Radio Group members enjoyed a talk and presentation regarding AREN.

The talk was given by John Ketch, EI2GN and involved an overview of the AREN structure and included information on training and events.

John Costello gave a presentation about the Anderson Power Pole system.

The meeting was enjoyed by all in attendance.

Meetings of the group take place at 8.00 p.m. on the last Wednesday of each month in the Roanmore Social and Sports centre, Cleaboy Road, Waterford. All are welcome. For information on upcoming meetings visit <http://www.searg.com>.

Members Advertisements

For Sale: Kenwood TH-F7E transceiver, 2m & 70cm with full wide-band receive. Complete with L-Ion battery, mains transformer/charger, manual and speaker microphone.

Mint and 'As new', in original packaging. Original W&S receipt @ £239 (sterling) in Feb 2005.

Will accept €40.00 or very near offer. Also Micronta Range Doubler Multi-Test meter (€40.00)

Avair AV-20 Cross needle SWR Power meter (€40.00)

Welltech PLL Stereo Wireless headphones (€30.00)

All as new in original packing.

Peter Mac Dougall, EI299.

Telephone 094 93 84525 - office hours only please.

For Sale: Yaesu FT 221R. All mode TRX. 146 - 148 MHz. Solid State with built in power supply.

Digital Readout TC.221 for 221R.

Pair of 8950 Valves.

Best offer on above.

Computer, monitor, keyboard, mouse to good home.

Phone 01-2809382 anytime.

Contest Calendar

July 2005

1st	0000-2359	Canada Day Contest	CW/SSB
2/3rd		VHF/UHF Field Day	
2/3rd	0000-2400	YV DX Contest	CW/SSB
9/10th	1200-1200	IARU HF Championships	CW/SSB
16/17th	1800-2100	CQWW VHF Contest	All
30/31st	1200-1200	Islands On The Air Contest	CW/SSB

August 2005

6/7th	0001-2359	10-10 Int. Summer QSO Party	SSB
13/14th	0000-2359	Worked All Europe DX Contest	CW
20/21st	1200-1200	Keymans Club of Japan Contest	CW
27/28th	1200-1200	TOEC WW Grid Contest	CW
27/28th	1200-1200	YO DX Contest	CW/SSB
28th	1400-1600 (L)	IRTS 2m Counties Contest	All

September 2005

3/4th	1300-1300	IRTS SSB Field Day	SSB
3/4th	0000-2400	All Asian DX Contest	SSB
10/11th	0000-2359	Worked All Europe DX Contest	SSB
17/18th	1200-1200	Scandinavian Activity Contest	CW

Packet News

TIPBBS is still quite active and links with EI3RCW in Waterford have been improved of late as has the CAHIR Node.

Since the crash early in the year the BBS has had a complete revamp, although much of the available files have been lost, there are still quite a few handy tips and other bits of data available.

You simply send the W command followed by W (Directory) and this will give the contents of the requested directory. So why not give the packet a try? It's free and contents and connections are all virus free as well.

Outgoing QSL Bureau

Please mail your cards directly to the Outgoing Bureau Manager

**Anthony Baldwin EI8JK,
Rathlin, Kilcrohane, Co. Cork.
ei8jk@amsat.org**

Your Letters

Dear Editor,

I refer to the last issue (March/April 05) of Echo Ireland and to the published letter of Paul O'Kane EI5DI... 'The world at our fingertips'.

Whilst we are all entitled to give our own opinion it's important that we keep these thoughts as 'opinions' and not have them morph into misinformed and ill guided facts.

I'm not too sure where Paul was going with his hypothetical Elephant Mobile wireless QSO scenario so let me offer the readership a real life example that 'mixes' VOIP technology and Amateur Radio in the REAL sense.

I hold a COMREG license for an Echolink Internet/Amateur Radio gateway with the appropriate call sign of EI2AIR-L. I was one of the first to apply and get authorised by Comreg and currently as I write this letter I am the only licensed RF gateway amateur station on Echolink in EI. I also fly a Cameron Z-77 Sport Hot Air Balloon G-CCHW (so we can forget about the elephant, more on this later).

When flying my balloon, I can and do work aeronautical mobile, working hams all over EI by line of sight, but ALSO via Echolink as I tend to fly within range of my shack which hosts the EI2AIR-L VOIP link.

For the record, I hold and keep current all necessary permissions and privileges assigned to me from the necessary authorities to enable these experiments to take place while Hot Air Balloon Aeronautical Mobile.

I don't use, have or want a wireless LAN connection to the balloon. I use the EI2AIR-L licensed amateur radio frequency of 145.2875Mhz FM. This feeds live to my shack where at that stage it is transferred to ECHOLINK / VOIP, until it gets to the far end where the VOIP is reverted back to RF and transmitted over another licensed amateur radio frequency the other side of the world. It's fun, it's technical and although Paul won't want to hear this, YES !, it's part of the wonderful hobby of Amateur Radio, and not an elephant in sight.

Infact, my Echolink/Hot Air Balloon amateur radio experiments have been so exciting, I have had a 3 page colour article recently published in QST MAGAZINE, the official journal of the American Radio Relay League.

Over the past number of years, computers have enhanced and complemented Amateur Radio, some amateurs even use them to log call signs and keep scores during contesting. The latter being an area of Amateur Radio which I have to admit never really appealed to me, but each to his own I say (Paul, please take note).

Computers appear to have made quite a 'compliment' to Amateur Radio, a fact that even Paul cannot deny, being the author of a critically acclaimed contest logging software, which is available, yes, you've guessed it., on the EI5DI website ON THE INTERNET !!!

In essence, what concerns me most about Paul's letter is his complete negative take on Amateur Radio VOIP technology. This is more pertinent when one realises that he is also an elected IRTS committee member.

When the IRTS are meeting Comreg with VOIP on the agenda, I cannot help but think how most unhelpful this might be to suspect that we could be represented by an elected IRTS Committee member who clearly has his own (and now outspoken and published) thoughts on such matters.

In summary, I would ask Paul not to be too critical of the 'Internet V Amateur Radio' argument when the super duper (pun intended) information highway is his best friend and ally when it comes to promoting his SD Windows Contest Logging Software.

.....Now let me into that glasshouse to throw some stones .

Aidan Murphy EI5HW
Sysop for EI2AIR-L



Mayo Radio Experimenters Network

Members of Mayo radio Experimenters Network who demonstrated amateur radio at the Hollybrook Vintage Tractor and Steam Rally on July 3rd 2005.

Left to Right:
John McAndrew, EI3JM (Treasurer): Mike Hayes EI2EO: Jimmy Kelly, EI2GCB (Chairperson): Shauna Baynes, SWL (Can send and receive 20wpm Morse): Padraig Baynes EI9JA (rally Director - seated), Brendan Minish EI6IZ (PRO).

Photograph (c) John Corless EI7IQ.

International Lighthouse/Lightship Weekend.

An Annual Amateur Radio Event. August 20/21st 2005

The International Lighthouse/Lightship Weekend came into being from the Scottish Northern Lighthouses award weekend. Over the past 7 years it has grown to over 370 lighthouses in some 51 countries around the world participating in the event. The event is always held on the 3rd full weekend in August starting at 0001 UTC on Saturday and finishing at 2359 UTC on Sunday. It also now coincides on the Sunday with the International Lighthouse Day which is an event organised by the International Association of Lighthouse keepers whereby as many world lighthouses will be open to the public for the day. The basic objective of the event is to promote public awareness of lighthouses and lightships and their need for preservation and restoration, to promote amateur radio and to foster International goodwill.

The event is NOT a contest, each station's operators decide how they will operate their station regards modes and bands. Participants are not committed to being on the air during the entire period - only as much as they can.

There are no restrictions on aerials or power. We wish operators to enjoy themselves and have fun whilst making contact with as many amateur radio stations as possible.

Some operators say fun - 5,000 contacts - OK, but we request that stations take some time to work other lighthouse or lightships as well as the slow operator, or the newly-licensed or QRP stations.

As available space in many lighthouses is filled to capacity, our activity does not have to take place inside the tower itself. Field day type set-up at the light or other building next to the light is OK. Permission MUST be obtained from any interested parties. Our guidelines require that the station must be AT or ADJACENT to the light.

Adjacent means next to or as close as possible in the field next door.

The Amateur Radio Lighthouse Society rule about 'line of sight' or 'within 1000m' does NOT apply to this event. If you wish to give out ARLHS numbers on a 'line of sight' or 'within 1000m' principle then they are only applicable for ARLHS awards and have nothing to do with the International Lighthouse/lightship Weekend. If you wish to use ARLHS numbers for identification of the light you are at or adjacent then that is OK.

The event is used to obtain maximum exposure for our hobby. We invite the press and, QTH permitting, also the public and try to underline the obvious parallel between the international aspect in lighthouses, lightships and amateur radio. We might catch a future radio amateur while creating goodwill for the hobby.

We use the event segment of the 5 'Classic' bands with a centre frequency if conditions are bad, at least we have one place we can (try to) meet. We request that the centre frequencies are not used as primary frequencies but as a last point of call to other participating stations.

The following are suggested frequencies only as they may not be legal in some countries.

If you have the room for an antenna, it may even be worth trying 160 meters.

80m	3.510 - 3.540 kHz	Centre 3.521 +/-
40m	7.005 - 7.035 kHz	" 7.021 +/-
20m	14.010 - 14.040 kHz	" 14.021 +/-
15m	21.010 - 21.040 kHz	" 21.021 +/-
10m	28.010 - 28.040 kHz	" 28.021 +/-

To assist other stations we request that participating CW stations add LT for lighthouse or LS for lightship, other stations add 'LIGHT', 'LGT', 'LIGHTHOUSE' or 'LIGHTSHIP' after their call. Stations in the UK normally obtain a GB callsign with the letter L in the suffix to assist other stations identifying them as a participating station in the event.

So come and join us in the fun of the weekend, establish a station at a lighthouse, lightship or maritime beacon. The more the merrier.

If you decide to join us in the fun Just fill in the online entry form with your details.

This will enable other stations to be aware of who is participating in the event.

73s Mike GM4SUC

Event Organiser and Coordinator.

International Lighthouse/Lightship Weekend.

<http://illw.net/>

ARISS-Europe News Bulletin

ARISS-Europe Meeting in Friedrichshafen

Friday 24 June 2005 an ARISS-Europe meeting took place in Friedrichshafen during Ham Radio. 19 participants discussed ARISS activities and projects.

SUITSAT

SuitSat, a Russian ORLAN Spacesuit converted into an orbiting satellite, will transmit a 500 mW signal on 145.990 MHz FM. Voice recordings from youngsters in English, French, German, Spanish, Russian and Japanese will send greet-

ings to the youth, worldwide. Each message will be about 20 seconds, separated by 30 seconds without signal. There will also be an SSTV picture as well as English spoken telemetry (elapsed time, temperature, battery voltage). The total transmit cycle will be about 8 minutes, which easily fits in a normal pass. Details will be made available in due time.

175 contributions from schools from all over the world have been burned in a CD which will be hosted in the SuitSat and be part of this unique Ham Radio satellite. The artwork of the schoolchildren and

students will orbit the earth for several weeks. A copy of the CD will stay on-board the ISS, at the disposal of the crew.

COLUMBUS

The antenna project on Columbus, the European ISS module, is making good progress. The funding campaign has rendered sufficiently to pay for the L/S-band antennas.

Whereas AMSAT Belgium has collected the donations, the Royal Belgian Amateur Radio Union (UBA) has accepted to sign the contract with the Wroclaw Technical University

10 Metre Internet Gateways in the UK

The UK first HF internet link gateway is now operational on 29.530 MHz from Rotherham South Yorkshire.

The gateway uses Echolink and when propagation is good the link will be widely available to stations worldwide using 10m FM.

The link is simplex and requires no tones.

The link has extra features such as the time, local weather and RSGB news available.

For a full list of commands please visit <http://www.qsl.net/m0cjy>

Ian M0CJY would be pleased to receive reception reports.

Around 21 UK 10m internet gateways are set to become operational around the UK using either 29.530 MHz or 29.630 MHz

For a full list please visit <http://www.dccrsgb.org>ShowGates.asp?BAND=0029>

Ian G3ZHI
<http://www.qsl.net/g3zhi> - many ham radio links
<http://www.ukirlp.co.uk>



Reading the Mail

By
Michael McNamara, EI2CL

Welcome to compilation #36 of "Reading the Mail" – an account of IRTS incoming QSL Bureau activity from 16 April to 17 June 2005.

For the record small packets (less than 1 kg) came from BFRR, Dutch QSL buro, EDR, G3TXF, JARL, OVSV, PT7, PT9, PY3, PY4, RA4H, RSB, SARA, SM0JHF, TA2RC, UY0ZG, YL2GN, and YO2.

Heavier lots came from ARRL, REF, SRR, SSA, (2kg each), ARI, PZK, UARL, URE (4kg each), DARC, Dutch QSL buro and RSGB (9.8kg each).

Cards from the following were noticed and thought worthy of mention:
A22/JA4ATV, EK1700Y, HF9IARU, J42004/DH1PS, K4T, KH6/W6PH, KP2A/KP5, OP0GS, OP1A, OS0TIB, PC100H, PI75AA, SB700J, SN4EU, SN70E, SQ0NATO, ST0RY, ST2DX, SU9BN, TP7CE, TT8PK, TZ6M, V51/DL5XL, W2J (Jeanie Johnston S.E.S.), XV1X, XV9DT, XY3C, XZ7A, YA1JA/p, YA4F, YA7X, YI/KE6TNN, YI9ZF, ZA/PE1LWT, 3W2KF, 5H3/SM1TDE, 6D9X, 7W0AD, 9N7QJ, 9S1X, 9X/ON4WW.

For IOTA chasers there was: BN0F, C98RF, CN2KA, D90HC/2, F/G0MEU/p, FH/TU5AX, FR/PA3GIO, JD1YAB, OJ0SM, PB2T/p, R1PQ, RI0BDI, RI0IMA, RW9JT/p, RX3BP/9, T33C, TO4E, TO4WW, K9PPY/VY0, XP1AB, VK9XW, YM0KI, YV0D, ZD7F, ZD9BV, ZW0S, 3B8/PA3GIO, 5J0X, and 5R8FU.

Congratulations to all recipients. Until my next report, all best wishes and lots of good DX in the meantime.

Michael McNamara, EI2CL



EI/EJ IOTA Contest Records

	QSOs	Mults	Score	IOTA Nr.	Year	QTH	Posn
Multi-Op Open							
EJ2MT	2,508	416	7,378,176	EU-121	2004	Bere Island	4
Multi Op Restricted							
EJ7M	1,336	239	1,924,428	EU-121	2003	Bere Island	6
Single Op 24 Hour Mixed							
EI5DI	1,052	190	1,243,718	EU-115	1999		2
Single Op 24 Hour CW							
EI4BZ	660	115	477,480	EU-115	2001		16
Single Op 24 Hour SSB							
EI8IR	2,091	217	2,546,061	EU-115	2004		2
Single Op 12 Hour Mixed							
EI4BZ	686	118	441,084	EU-115	2004		7
Single Op 12 Hour CW							
EI4DW	382	76	181,944	EU-115	2002		29
Single Op 12 Hour SSB							
EI7GL	424	151	612,456	EU-115	2001		8

Web Sites of Interest

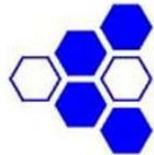
Readers are invited to submit sites they have come across that might be of interest to other readers.

www.heavens-above.com
(tks Povl EI9CSB)

A site dedicated to matters heavenly, i.e. stars, satellites etc.

www.qrz.com
The main callsign listing site on the web However, you must put up your own callsign as they do not use national call books for updating.
Don't forget to state your policy on QSL cards.

www.buckmaster.com
The other big call listing site, You may update your own listing on this site and on QRZ.



CELLCOM IRELAND LTD
Oranmore, Co. Galway
www.cellcom.ie

Phone: (091) 790222
E-mail: info@cellcom.ie
www.cellcom.ie

**ICOM TENNADYNE
MFJ AMERITRON HY-
GAIN VIBROPLEX CREA-
TE CUSHCRAFT
MICROAIR AVIONIC
RADIO
GARMIN GPS**

The Ultimate Radio Shack
Quadruuple Insulation, Fully
equipped Kitchen, Bedrooms, WC,
Living room...



The ultimate MOBILE Radio Station ..
Contact mhiggins@telecomes.com

1994, 6 berth Motorhome, 56K miles
Mercedes Engine

**MAIN DEALERS FOR ICOM
UK - All models in stock, full
workshop service facilities**



**EUROPEAN DISTRIBUTERS
for TENNADYNE**

Log Periodic Antennae.. Light-
weight, max bandwidth, low resis-
tance, high strength..
Excellent Performance



**UPS - Don't let your QSO be
interrupted by
a power cut!**

**Suitable for
Home, Office,
Shack, Remote
supplies.**



Some S/H UPS available NOW

**CALL US FOR INFORMA-
TION ON:
GARMIN GPS
MARINE VHF, CHART-
PLOTTERS, FISHFINDERS,
BLUECHART
AVIONIC RADIO & GPS
COMMERCIAL RADIO
SITE ACCOMMODATION**

**SECOND HAND / EX-DEMO
STOCK:**
IC 7400 IC 910H
IC 756 PRO IC 703
IC PCR 100 IC R75
Yaesu FT 1000 MP M5
Kenwood TS2000
**Lots of used ex-commr diploes,
Yagis & transceivers for 2m**